Financial Statement Analysis and Valuation

Wednesday 08h15-11h00

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1. Objective

This course is designed to develop students' capabilities to efficiently and effectively read, interpret, and analyse financial statements. The fundamental analysis is taught from a practical perspective, where listed companies are used for in-class cases and exercises. Although the primary focus is on equity valuation, lending and other investment decisions are also discussed.

Students learn how measurement and reporting rules determine and possibly restrain the information implied in accounting data and how reformulation and adjustments to the financial statements allow for better informed decisions. The primary course objectives are the following:

1. Develop a framework for analysing a business that can be used as a basis for the preparation of a financial analyst report;
2. Calculate and interpret financial ratios (e.g., profitability, growth, leverage, and liquidity) that allow for across- and within- firm comparisons with the ultimate objective of forecasting the future;
3. Develop an understanding on how accounting errors (either intentional manipulation by the management or unintentional mistakes) and the flexibility that companies have in applying existing accounting principles affect reported income and the book value of equity;
4. Examine and compare different models of shareholder value, including the residual earnings, the abnormal earnings growth, and the discounted cash flow model.

This year, for the first time, students and the lecturer together will also try to explore the meaning of this course in the time of artificial intelligence.

The course language is English.

2. Organization

Textbook and Materials

1. **PowerPoint Slides**
   The slides will be distributed before the beginning of each session on the ILIAS platform. These remain the main learning materials.
2. **Assignments**
   The course assignments will be distributed after each session on the ILIAS platform. These, along with the slides, are the main resource for exam preparation.
3. Penman, S. H. Financial Statement Analysis and Security Valuation. 5th ed.
   The book will be available in the university library. Students can use it as a reference.

Assignments and Presentations

All assignments are an integral part of the course and will be tested during the exam. Each session's assignment will be distributed to students after the class on the ILIAS platform.

Each week, the assignment for students will revolve around the content covered in that week's lecture. *Also, as this year we also try to explore the impact of artificial intelligence on financial statement analysis and valuation, an open-ended question related to the role and significance of this course in the era of artificial intelligence will be included at the end of every assignment (given the exploratory nature of this topic, the format and content of responses to this question will be fairly flexible).*

Students are required to organize themselves in groups. The number of group members depends on the total enrollment, and it will be specified in the first session and then posted on ILIAS. Students are required to announce the group's members to the lecturer via email by **sending in the group announcement sheets by no later than 17h00, February 26th, 2024**. **Late submissions will not be considered.** Group announcement sheets can be downloaded from the ILIAS platform. Presentations throughout the semester will be equally distributed to all groups. In the case of groups with more than one member, all group members have to take part in the presentation.

The presentation will be conducted at the beginning of each session, and it will be about last session's assignment. During the presentation, the group in charge of the presentation will share solutions to the assignment and lead discussions about the assignment. **Note that the assignment presentation is a necessary precondition to take the final exam (see Grading below).**

The presentation group is required to send the presentation slides to the lecturer via email 48 hours before the beginning of the class (other students who are not in the presentation group do not need to submit their solutions). **Groups that submit their slides late or submit the slides without required content will be assigned to one more assignment presentation in order to pass** (please note that if the group fails the second time, no more opportunities

will be given)**.** The lecturer will give feedback to the slides in order to help students with their presentations. Early submission is recommended.

A complete solution of each assignment will be discussed during the presentation. After the session, the presentation group is responsible to account for the lecturer's feedback and to hand in a corrected version that can be posted on the ILIAS platform before the next session. Note however, that posted student solutions are not corrected by the lecturer. **No solutions of assignments will be distributed in class.**

After the presentation, each presentation group member will be given personal feedback from the lecturer about his/her presentation and communication skills. The presentation is not about being perfect. It is about being prepared and learning through practice.

Student presentations will start from the third session. In the second session, the lecturer will give the assignment presentation to provide some guidelines for future presentations. Students should feel free to include any presentation design that will make the content more understandable and engaging. Such designs are of course welcomed.

Grading

The final grade will be based upon

(i) group assignment submission: 10%
- evaluated based on content quality and slides quality
- *groups that submit their slides late or submit the slides without required content will be marked as fail directly*

(ii) group assignment presentation: 10%
- evaluated based on presentation delivery and responsiveness
- *group members that do not participate in the presentation will be marked as fail directly*

(iii) a written exam of 90 minutes: 80%
- Note that passing (i) and (ii) are a necessary precondition to take the final exam. And they need to be passed in the same academic year in which the exam is taken. **Students who fail (i) and (ii) cannot take the final exam.**
- The written exam is a closed book exam. The exam may include any combination of multiple-choice, short-answer, and larger numerical exercises. Topics covered in lecture and homework assignments are indicative of the topics tested on the exam. In the last session, a review session will be conducted. The lecturer will present key concepts with relevant questions to help students prepare for the exam.
- Only the calculator TI-30 ECO RS (will be distributed) can be used during the exam. Private calculators, cell phones, or other electronic devices are not allowed during the exam. Any violation of these rules results in a zero exam score.

Lecturer

Prof. Dr. Yanjia Yang is the lecturer responsible for this course.

If students have any questions or want to arrange a meeting, please feel free to email her: yanjia.yang@unibe.ch

Miscellaneous

The use of cell phones in the class is not allowed. Please keep the phone off or in the silent mode.

3. Tentative Schedule and Course Outline

Session and Date	Topic and Content
Session 1 21.02.24	Course Syllabus and Introduction - Investment styles - Fundamental and price risk - Fundamental analysis - Impact of AI (exploratory)
Session 2 28.02.24	Articulation of the Financial Statements - Articulation of the FS - Dirty Surplus Accounting - P/B and P/E Ratios as Investment Strategies - Measuring Value Added in Accounting - Operating, Investing and Financial Activities - Treasurer's Rule - Templates for the Reformulation of the FS - Drivers of Value
Session 3 06.03.24	
Session 4 13.03.24	Reformulation of the Balance Sheet and the Income Statement - Reformulation of the Balance Sheet and the Income Statement - Dirty Surplus and Hidden Dirty-surplus Income - Distinction between Operating and Financing Assets and Liabilities
Session 5 20.03.24	

	- Distinction between Operating and Financing Items in the Income Statement - Allocation of Taxes to the Operating and Financing Components - Common-size and Trend analysis
Session 6 27.03.24	Reformulation of the Cash Flow Statement - Reformulation of the Cash Flow Statement - Identification of FCF in the Cash Flow Statement - Adjustment Made to the GAAP Cash Flow Statement
Session 7 10.04.24	Valuation - Part A - Multiples: Method of Comparables and Screening - Asset-based Valuation - Terminal VS Going-concern Investments - Fundamental Analysis - Dividend Discount Model and Dividend Irrelevance - Discount Cash Flow Model - Earnings, Accruals and Cash Flow
Session 8 17.04.24	
Session 9 24.04.24	Valuation – Part B - Residual Earnings and Abnormal Earnings Model - Normal P/B ratio - Intrinsic Forward and Normal P/E Ratio - Value Drivers - Analysts' Forecasts and Implied Valuation
Session 10 01.05.24	
Session 11 08.05.24	
Session 12 15.05.24	Analysis of Profitability - Decomposition of ROCE - Return on Net Operating Assets - Return on Operating Assets - Financial and Operating Liability Leverage - Profit Margin and Asset Turnover - Drivers of Profitability

Session 13 22.05.24	Analysis of Growth and Sustainable Earnings - Residual Operating Income - Growth - Sustainable Earnings - Core Operating Income and Unusual (Transitory) Items - Core Borrowing Cost - Drivers of Growth in RE: Changes in RNOA and Shareholders' Equity
Session 14 29.05.24	Review and Preparation for the Exam