



## Course and Examination Fact Sheet: Autumn Semester 2017

### 9,174: Dynamic Equity Analysis and Security Trading (MBF)

ECTS credits: 4

#### Overview examination/s

(binding regulations see below)

Decentral - Written examination (45%, 60 mins.)

Decentral - Written examination (45%, 60 mins.)

Decentral - Active participation (10%)

#### Attached courses

Timetable -- Language -- Lecturer

[9,174,1.01 Dynamic Equity Analysis and Security Trading \(MBF\), Group 1](#) -- Englisch -- [Frauendorfer Karl](#), [Gutsche Robert](#)

[9,174,1.02 Dynamic Equity Analysis and Security Trading \(MBF\), Group 2](#) -- Englisch -- [Frauendorfer Karl](#), [Gutsche Robert](#)

#### Course information

#### Course prerequisites

The course is of interest to those contemplating careers in investment banking (particularly in equities), security analysis, equity hedge funds, private equity, consulting, public accounting, and corporate finance.

This course is recommended for MBF-students in their first or third semester of the program.

#### Course content

The aim of this course is to enable students to derive dynamic investment decisions based on financial and non-financial fundamental information. The course combines valuation of equity & derivative securities and financial statement analysis with investment/trading decisions and hedging techniques.

The desired learning outcome is particularly supported by the experiential learning environment offered by the HSG Trading Room, which is a trading floor equipped with interactive trading software, Thomson Reuters, Datastream and Bloomberg access.



## Course structure

The course covers the below topics in twelve lectures.

Each lecture applies data research with Thomson Reuters (Eikon), Datastream, and Bloomberg.

Each lecture is accompanied by trading cases and extensive self-study of concept questions and exercises.

### Lecture 1: Introduction

- Key Concepts of Investing and Business Analysis
- Fundamental Analysis, Principles of Securities Analysis & Principles of Modern Finance
- Fundamental Risk, Price Risk, and the role of Efficient Markets
- Enterprise, Equity Book and Market Value
- Calculating Cost of Capital and Stock Returns
- Data Bases:
  - Thomson Reuters (Eikon),
  - Datastream (Worldscope, IBES,...), and
  - Bloomberg
- Trading Software: FTS

#### *Required Reading:*

(S. H. Penman, 2013, Chapter 1, 2, and 11)

#### *Recommended Related Reading:*

(Lee, Myers, & Swaminathan, 1999)

### • Lecture 2: Valuation Methods I: Methods That Do Not Involve Forecasting

- Technical Screening
- Multiple Screening: P/B and P/E portfolios, P/E-Screening on Earnings Yield and PEG Ratios
- Comparable Valuation
- Index Investing

#### *Required Reading:*

(S. H. Penman, 2013, Chapter 3)

#### *Recommended Related Reading:*

(Chen, Roll, & Ross, 1986; Fama & French, 1992; Lakonishok, Shleifer, & Vishny, 1994; S. Penman & Reggiani, 2013; Young, 2015)

### Lecture 3: Valuation Methods II: Methods That Do Involve Forecasting

- Dividend Discount Model
- Discounted Cash Flow Model



- Growth Estimation and Dividend Policy
- Discussion and Critical Reflection DDM and DCF Valuation Models and Bridging to Concept Behind the Price-to-Book and Price-to- Earnings Ratio

*Required Reading:*

(S. H. Penman, 2013, Chapter 4)

*Recommended Related Reading:*

(CEASA, 2006; Gordon, 1959; Miller & Modigliani, 1961)

#### **Lecture 4: Valuation Methods III: Methods That Do Involve Forecasting**

- Concept Behind the Price-to-Book and Price-to- Earnings Ratio
- Residual Earnings Model
- Abnormal Earnings Growth

*Required Reading:*

(S. H. Penman, 2013, Chapter 5 and 6)

*Recommended Related Reading:*

(S. H. Penman & Sougiannis, 1998)

#### **Lecture 5:**

- (Normal) P/E Ratios (Forward, Trailing)
- (Normal) P/B Ratios and their Use in Equity Analysis and Valuation

*Required Reading:*

(S. H. Penman, 2013, Chapter 5 and 6)

#### **Lecture 6: EPS and EPS-Growth as Determinants of Value**

- Constructing the EPS-Growth Path
- Target Prices: Using EPS, DPS and Book Values



*Required Reading:*

(S. H. Penman, 2013, Chapter 7)

*Recommended Related Reading:*

(Ohlson & Juettner-Nauroth, 2005)

**MIDTERM EXAM**

**Lecture 7: Challenging the Market**

- Reverse Engineering: Implied Earnings Forecasts and Earnings Growth Rates
- Inferring Market Implied Residual Earnings Growth and Its Analysis

- *Required Reading:*

(S. H. Penman, 2013, Chapter 7)

**Lecture 8: Financial Statements used in Equity Analysis and Valuation**

- Identifying Operating, Investing, and Financing Transactions
- Off-Balance Sheet Items
- Reformulation of Financial Statements
- Cross Section and Time Series Analysis
- Payout and Retention Ratios, The Analysis of Profitability, Return on Common Equity
- Accounting Quality Issues
- Abnormal Returns to Quality Analysis

*Required Reading:*

(S. H. Penman, 2013, Chapter 8 to 11)

*Recommended Related Reading:*

(Ball & Shivakumar, 2008; Beneish, 1999; Brav, Graham, Harvey, & Michaely, 2005; Burgstahler & Dichev, 1997; Dechow, Sloan, & Sweeney, 1995; Healy, Myers, & Howe, 2002; Li & Wong, 2005; S. H. Penman & Zhang, 2006, 2002; Piotroski, 2000; Sloan, 1996; Teoh, Welch, & Wong, 1998)



## **Lecture 9: The Use of DuPont in Equity Analysis and Valuation / The Analysis of Growth and Sustainable Earnings / Forecasting**

- Distinguishing Financing and Operating Activities and the Effect of Leverage
- Financial Leverage, Operating Liability Leverage, Liability Leverage Effects on Shareholder Profitability, Return on Net
- Operating Assets and Return on Assets
- Financial Leverage and the Debt-to-Equity Ratio
- Profit Margin Drivers, Turnover Drivers, Borrowing Cost Drivers
- Industry Growth Analysis

### *Required Reading:*

(S. H. Penman, 2013, Chapters 12 to 16)

### *Recommended Related Reading:*

(Fairfield & Yohn, 2001; Nissim & Penman, 2001; Soliman, 2008)

## **Lecture 10: Risk Analysis and the Value of Debt in Equity Valuation**

- Analysis of Changes in Financing
- The Analysis of Risk and Return
- The Analysis of Equity Risk and Return
- The Analysis of Credit Risk and Return
- Altman Z-Score
- Credit Risk
- Active Bond Investing

### *Required Reading:*

(S. H. Penman, 2013, Chapter 17 to 20)

### *Recommended Related Reading:*

(Altman, 1968; Beaver, 1967; Farrelly, Ferris, & Reichenstein, 1985; Ohlson, 1980)

## **Lecture 11/12: Active Equity Investing**

- Nature and Distribution of Risk and Return
- Value-at-Risk Profiling (Note: The value-at-risk here is not to be confused with VaR the value at risk measure used to indicate the risk of a trading portfolio)
- Trading on Fundamental Risk
- Market Inefficiency Risk (Price Risk)
- Hedging Strategies



*Required Reading:*

(S. H. Penman, 2013, Chapter 19)

*Recommended Related Reading:*

(Ammann, Verhofen, & Süss, 2009; Hull, 2011, Chapter 3 and 14; Jin & Jorion, 2006)

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**FINAL EXAM**

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## Course literature

The course is based on the following text book:

Penman, S. H. (2013). *Financial statement analysis and security valuation*. New York: McGraw-Hill/Irwin.

### Recommended Additional Literature:

Altman, E. (1968). Financial ratios, discriminant analysis, and the prediction of corporate bankruptcy. *Journal of Finance*, 23(4), 589–609.

Ammann, M., Verhofen, M., & Süss, S. (2009). Do implied volatilities predict stock returns? *Journal of Asset Management*, 10(4), 222–234.

Ball, R., & Shivakumar, L. (2008). Earnings quality at initial public offerings. *Journal of Accounting and Economics*, 45(2-3), 324–349.

Beaver, W. (1967). Financial ratios as predictors of failure. *Empirical Research in Accounting, Selected Studies 1966, Institute of Professional Accounting*, 18(2), 77–110.

Beneish, M. D. (1999). The detection of earnings manipulation. *Financial Analysts Journal*, 55(5), 24–36.

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. *Journal of Financial Economics*, 77(3), 483–527.

Burgstahler, D., & Dichev, I. (1997). Earnings management to avoid earnings decreases and losses. *Journal of Accounting and*



*Economics*, 24(1), 99–126.

CEASA. (2006). Perspectives on the cash flow statement under FASB Statement No . 95. *Occasional Paper Series, Center for Excellence in Accountin and Security Analysis (CEASA)*, (95), 1–136.

Chen, N., Roll, R., & Ross, S. A. (1986). Economic forces and the stock prices. *The Journal of Business*, 59(3), 383–403.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193–225.

Fairfield, P. M., & Yohn, T. L. (2001). Using asset turnover and profit margin. *Review of Accounting Studies*, 371–385.

Fama, E. F., & French, K. R. (1992). The cross-section expected stock returns. *Journal of Finance*, 47(2), 427–465.

Farrelly, G. E., Ferris, K. R., & Reichenstein, W. R. (1985). Perceived risk, market risk, and accounting determined risk measures. *The Accounting Review*, 60(2), 278–288.

Gordon, M. J. (1959). Dividends, earnings, and stock prices. *The Review of Economics and Statistics*, 41(2), 99–105.

Healy, P. M., Myers, S. C., & Howe, C. (2002). R&D accounting and the tradeoff between relevance and objectivity. *Journal of Accounting Research*, 40(3), 677–710.

Hull, J. C. (2011). *Options, futures and other derivatives* (8th editio). Boston, Mass.: Prentice Hall.

Jin, Y., & Jorion, P. (2006). Firm value and hedging: Evidence from U.S. oil and gas producers. *Journal of Finance*, 61(2), 893–919.

Lakonishok, J., Shleifer, A., & Vishny, R. W. (1994). Contrarian investment, extrapolation, and risk. *Journal of Finance*, 49(5), 1541–1578.

Lee, C. M. C., Myers, J., & Swaminathan, B. (1999). What is the intrinsic value of the dow? *The Journal of Finance*, 54(5), 1693–1741.

Li, F., & Wong, M. H. F. (2005). Employee stock options, equity valuation, and the valuation of option grants using a warrant-pricing model. *Journal of Accounting Research*, 43(1), 97–131.

Miller, M., & Modigliani, F. (1961). Dividend policy , growth , and the valuation of shares. *The Journal of Business*, 34(4), 411–433.

Nissim, D., & Penman, S. H. (2001). Ratio analysis and equity valuation: from research to practice. *Review of Accounting Studies*, 109–154.

Ohlson, J. A. (1980). Financial ratios and the probabilistic prediction of bankruptcy. *Journal of Accounting Research*, 18(1), 109–131.

Ohlson, J. A., & Juettner-Nauroth, B. E. (2005). Expected EPS and EPS growth as determinants of value. *Review of Accounting Studies*, 349–365.

Penman, S. H. (2013). *Financial statement analysis and security valuation*. New York: McGraw-Hill Irwin.

Penman, S. H., & Sougiannis, T. (1998). A comparison of dividend, cash flow , and earnings approaches to equity valuation. *Contemporary Accounting Research*, 15(3), 343–383.

Penman, S. H., & Zhang, X. (2006). *Modeling Sustainable earnings and P/E ratios with financial statement analysis*. SSRN eLibrary(June 1). [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=318967](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=318967) \nhhttp://pruss.narod.ru/Model\_PE.pdf

Penman, S. H., & Zhang, X. J. (2002). Accounting conservatism, the quality of earnings, and stock returns. *Accounting Review*, 77(2), 237–264.

Penman, S., & Reggiani, F. (2013). Returns to buying earnings and book value: accounting for growth and risk. *Review of Accounting Studies*, 18(4), 1021–1049.



Piotroski, J. D. (2000). Value investing: the use of historical financial statement information to separate winners from losers. *Journal of Accounting Research*, 38(May), 1–41.

Sloan, R. G. (1996). Do stock prices fully reflect information in accruals and cash flows about future earnings? *Accounting Review*, 71(3), 289–315.

Soliman, M. T. (2008). The use of DuPont Analysis by market participants. *The Accounting Review*, 83(3), 823–853.

Teoh, S., Welch, I., & Wong, T. (1998). Earnings management and the underperformance of seasoned equity offerings. *Journal of Financial Economics*, 50(1), 63–99.

Young, S. (2015). Accounting comparability and the accuracy of peer-based valuation models. *The Accounting Review*, 90(6), 2571–2601.

## Additional course information

This course requires active participation and engagement.

## Examination information

### Examination sub part/s

#### 1. Examination sub part (1/3)

##### Examination time and form

Decentral - Written examination (45%, 60 mins.)





## Remark

Midterm

## Examination-aid rule

Extended Closed Book

The use of aids is limited; any additional aids permitted are exhaustively listed under "Supplementary aids". Basically, the following is applicable:

- At such examinations, all the pocket calculators of the Texas Instruments TI-30 series and mono- or bilingual dictionaries (no subject-specific dictionaries) without hand-written notes are admissible. Any other pocket calculator models and any electronic dictionaries are inadmissible.
- In addition, any type of communication, as well as any electronic devices that can be programmed and are capable of communication such as notebooks, tablets, PDAs, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

## Supplementary aids

Course text book without any annotations.

## Examination languages

Question language: English

Answer language: English

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## 2. Examination sub part (2/3)

### Examination time and form

Decentral - Written examination (45%, 60 mins.)

## Remark

Final Exam

## Examination-aid rule

Extended Closed Book

The use of aids is limited; any additional aids permitted are exhaustively listed under "Supplementary aids". Basically, the following is applicable:

- At such examinations, all the pocket calculators of the Texas Instruments TI-30 series and mono- or bilingual dictionaries (no subject-specific dictionaries) without hand-written notes are admissible. Any other pocket calculator models and any electronic dictionaries are inadmissible.
- In addition, any type of communication, as well as any electronic devices that can be programmed and are capable of communication such as notebooks, tablets, PDAs, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

## Supplementary aids

Course text book without any annotations.

## Examination languages

Question language: English

Answer language: English

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## 3. Examination sub part (3/3)

### Examination time and form

Decentral - Active participation (10%)

## Remark

To be defined in class.

## Examination-aid rule

Practical examination



No examination-aid rule is necessary for such examination types. The rules and regulations of the University of St. Gallen apply in a subsidiary fashion.

## Supplementary aids

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## Examination languages

Question language: English

Answer language: English

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## Examination content

Investment Analysis, Trading and Hedging Strategies, which have been taught in the lectures.

## Examination relevant literature

Penman, S. H. (2013). Financial statement analysis and security valuation. New York: McGraw-Hill/Irwin.



### Please note

We would like to point out to you that this fact sheet has absolute priority over other information such as StudyNet, faculty members' personal databases, information provided in lectures, etc.

When will the fact sheets become binding?

- Information about courses and examination time (central/decentral and grading form): from the start of the bidding process on 24 August 2017
- Information about decentral examinations (examination-aid rule, examination content, examination relevant literature): after the 4th semester week on 16 October 2017
- Information about central examinations (examination-aid rule, examination content, examination relevant literature): from the start of the enrolment period for the examinations on 06 November 2017

Please look at the fact sheet once more after these deadlines have expired.