

# Financial Statement Analysis

A Student Guide by Francesco Giunta

Academic Year 2016-2017

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### 1. COURSE OVERVIEW AND OBJECTIVES

This course would like to equip you with the knowledge to read, interpret and analyze financial statement data in order to make informed business decisions regarding investment, credit, or resource allocation. Such skills are required for equity and credit analysts, executives, bankers, auditors, consultants and other users of financial information.

Financial statement analysis will be presented as a part of fundamental analysis. Fundamental analysis (FA) aims at determining the intrinsic value of a company, which is the basis for determining the target price of a company's stock, i.e. «an estimate of a stock's future price based upon an earnings forecast and assumed valuation multiples».

Against this backdrop, the Cash Flow Statement represents the pivotal concept of our class: our focus will be on how to prepare it and interpret its contents. Other related topics are:

- Accounting data quality and earnings management
- Balance sheet statement and income statement “reengineering”
- Profitability analysis
- Solvency analysis

These topics will be presented in three integrated parts of our class:

- a) *Gathering and assessing information*. FA firstly requires an analyst to know what information

*“Financial statements report the numbers. Financial statements translate economic factor into accounting numbers like assets, sales, margins, cash flows, and earnings, and therefore we analyze the business by analyzing financial statements. We understand the effects of market power from accounting numbers. We evaluate the durability of competitive advantage from sequences of accounting numbers. Financial statements analysis organizes the financial statements in a way that highlights these features of a business”*

Stephen H. Penman  
2010

he/she needs (in particular, financial information), where to look for that information, and how to assess its quality.

- b) *Adjusting financial information*. Accounting data presented in the GAAP-based financial statements has to be reformulated to reflect business activities, i.e. how a company works and creates value. The reengineering process regards all the statements, the cash flow statement included. In a few cases, it is up to the analyst to prepare this statement.
- c) *Elaborating financial information*. To delve into the economic contents of the reformulated financial statements, an analyst has to zero in on a company's profitability, liquidity and long-term solvency. In this respect, «it is inconceivable that accounting data can be analyzed without transferring it into ratios, in one way or another».

## 2. PREREQUISITES

The course assumes you have a solid grasp of financial accounting concepts and principles. You should also have some notions of finance.

## 3. CLASS MEETINGS

The course is based on lectures and tutorials.

*Lectures* will systematically deal with concepts and analytical tools you are requested to use. In align with an international master class approach, lectures aim at offering you a conceptual framework to manage the different phases of your analysis and draw your attention to some significant issues. Each *tutorial* is conceived to give students a practical application of previously studied theoretical notions; thus, we will apply analytical tools to conduct an extensive analysis of a real company, by using its current financial statements. We will spend a third of our class time working on tutorials. You are encouraged to prepare for tutorials in **teams**. Team discussions will enable each of you to better understand assignments, readings, and lectures.

A mix of theoretical lectures, tutorials, and discussions provides an interactive learning environment, allowing you to achieve a better understanding of the economic meaning of the financial statement contents.

## 4. DIDACTIC MATERIAL AND CLASS WEBSITE

The main topics our class deals with are analyzed in very good international handbooks. These books are particularly fitting to our class:

- P. M. Bergevin, *Financial Statement Analysis: An Integrated Approach*, Upper Saddle River (N.J.), Prentice Hall, 2002;
- P. Easton - M.L. McAnally - G. Sommers - Xiao-Jun Zhang, *Financial Statement Analysis and Valuation*, 4th edition, Cambridge Business Publishers, 2015;
- S.H. Penman, *Financial Statement Analysis and Securities Valuation*, McGraw Hill International Edition, 2010;
- C.P. Stickney – P. R. Brown – J. M. Wahlen, *Financial Reporting, Financial Statement Analysis, and Valuation*, Thomson South-Western, 2007;
- R. Subramanyam – J. J. Wild, *Financial Statement Analysis*, McGraw Hill-Irwin, 2009;
- G. I. White – A. C. Sondhi – D. Fried, *The Analysis and Use of Financial Statements*, John Wiley, 2003.

Students are allowed to choose the source to draw from. Once you make your choice, only a few selected chapters should be studied. The chapters of each book, which are the most related to the class contents, are:

- Bergevin, 1-6, 8-14
- Easton et al., 1-4, Appendix B
- Penman, 3, 7-11, 15, 17-19
- Stickney et al., 1, 3-6
- White et al., 2-4, 17-18
- Subramanyam et al., chapters: 1, 2, 6-8, 10.

**A student is also free to shape his/her personal handouts, by gathering chapters selected from the recommended handbooks.**

To know something more about financial ratios, a good handbook to have a look at is:

- Bragg S.B., Business Ratios and Formulas. A Comprehensive Guide, J. Wiley and sons Inc., 2002 (downloadable from class' website)

In the detailed description of class meetings (see *Section 8*), the chapter of the handbook that, in my opinion, fits best the topic of each meeting is shown. Additional readings are also suggested.

More information and didactic materials can be found on the **class website**: [www.financialstatementanalysis.eu](http://www.financialstatementanalysis.eu)  
On the website, you will also find the assignments for the tutorials. Please, log in to the website as soon as possible to receive a **weekly newsletter** in order to be informed on class activities.

## 5. FEEDBACK

As I would like to continue to improve this course, participants' feedback is critical. You are encouraged to provide feedback on class topics and contents. I welcome any criticisms, questions or opinions regarding our course. To address your comment, please use our class website or my e-mail. I also accept anonymous written messages posted in my mailbox, at the Department of Economics and Management, via delle Pandette 9, Building D6, 3rd floor.

## 6. EXAM AND GRADING

At the end of our class, we will assess your preparation by means of an individual test. Students are also encouraged to write a financial analysis report. In this case, the course grade will take into account both students' results, in this proportion:

- Individual test 60%
- report 40%

In any case, to pass your exam you must get a passing grade in your individual test and report.

For students who will take part in class meetings on a regular basis (and only for them), the course grade will also factor in class participation. The grade for class participation only works in your favor: if you actively attend class meetings, you could earn up to three points to add to your individual test and report average grade.

### Individual test

The individual test is a written test.

**If you have prepared a financial analysis report**, you are requested to do three intertwined exercises, working on some financial statements that you will be given. One exercise focuses on the financial statement reengineering; one deals with a cash flow statement preparation; the last exercise is a brief ratio analysis concerning a company's profitability and solvency conditions. After calculating some ratios that are considered the most fitting, you have to comment on the accounting results. You will have two hours to carry out your work.

To take their test, students will use a spreadsheet (for calculation) and a Word file (for comments). For this reason, the test will be held in building D15.

**For students who do not present a financial analysis report**, the final exam consists of an analysis of a listed company's financial statements. Students have to work out a report where they present an essay structured in four sections:

1. analysis of the business background of the company
2. comment on the financial statements' quality
3. analysis of profitability
4. analysis of solvency

All the statements in the report have to be justified and supported with the analysis of specific accounting data. Analyzing solvency, students are requested to present a "reengineered" cash flow statement. The test lasts 3 hours. To prepare the business background analysis, a week before the exam, students will be informed, by e-mail, on the branch of industry which the company to be analyzed works in.

To draw up their report, students are allowed to use a spreadsheet and a Word file. For this reason, the test will be held in building D15.

### Report

At the beginning of our course, individuals or groups choose a company out of the following list:

- Amplifon
- Easyjet
- Ferragamo
- Domino's Pizza
- Intercontinental Hotel Group
- Moncler
- Vedanta
- William Hill.

You have to prepare a report on the selected company, which analyzes the main strands we will focus our attention on in our lectures and tutorials. In the first section of your report, you should depict the environment your target company competes in and the main strategies it adopts. In the second section, you should zero in on financial statements reengineering and cash flow presentation. In the third section, you should delve into your company's profitability and solvency situation. Students can work on the consolidated financial statements or the separate financial statements of the aforementioned companies.

The full report must be handed in to me by June 12, 2017. Your report will be valid for the 2016-2017 academic year.

Students are allowed to work individually, but they are encouraged to work as a team of no more than four people. The allocation of companies among groups will follow a first-come-first-serve policy. No more than two groups should have the same company. It is up to you to form your own teams. **Please, do not ask me to find a team for you and do not ask me to allow you to form a team of more than four people.** By March 6, you have to give me the list of all the groups.

### Class participation

The grade for class participation will depend on the quality of your interaction and participation in class discussions. In particular, students should actively participate in tutorials. This implies the preparation of specific assignments related to each tutorial before class and sharing of your insights during class. Assignments will be communicated by means of a weekly newsletter.

**I will randomly call on study teams to deal with some problems the tutorial is concerned with.** This practice is not intended to put you on the spot, but to encourage everyone to participate in the class discussion. In particular, your contribution will be appreciated, by making comments to move the discussion toward a better understanding of the concepts covered in class.

In evaluating your contribution, the quantity of comments is not important per se or offering the "right" solution. Typically, no single "right" solution exists. Many of the financial statement analysis problems you will address through tutorials will not have clear-cut or "correct" solutions. Therefore, there is much to be gained if we examine a wide variety of viewpoints. You can provide valuable contribution by posing intelligent questions, raising alternative viewpoints, and providing well-reasoned challenges to expressed views.

### Grading Policy

Assigning grades that reward excellence and reflect differences in performance is important to ensure the integrity of your curriculum. In this respect, please note the following grading-related policies:

- For term projects, I will look at two strands of your work:
    - 1. Presentation (40%)  
Organization, use of visuals and highlights, typeset, tables, use of an appendix, professional appearance
    - 2. Contents (60%)  
Readability, synthesis, focus on key issues only, development of an economic reasoning with personal interpretations, conclusions and forecasts
- By using these criteria, the projects will be ranked into four classes:
- A. Very good (28-30)
  - B. Good (26-27)
  - C. Average (24-25)
  - D. Limited but satisfactory (20-23)
  - E. Not satisfactory

- The same rationale will be used to assess your individual test. Thus, I will take into account presentation and contents. I will focus my attention on cash flow statement, ratio selection, and comments. I appreciate comments that are not didactic (i.e. you explain what a ratio means in general) or descriptive (i.e. you translate numbers into words), but comments that are consistent with the strategic background of the company.
- It is not possible to make up for poor performance by doing extra work.
- If a student feels that an error has been made in the grading of his/her report or in assessing the individual exam, a request to have that grade re-evaluated may be submitted. Students should submit such requests in writing within 2 days of receiving the grade, including a brief written statement, which explains the error in grading that she/he thinks has been made.

#### Exam dates (individual test)

- June 19, 2017, at 9:00 a.m., rooms D15/102-D15/204, D15/306;
- July 11, 2017, at 9:00 a.m., rooms D15/102-D15/204, D15/306;
- September 5, 2017, at 9:00 a.m., rooms D15/102-D15/204, D15/306;
- December 19, 2017, at 3:00 p.m., rooms D15/102-D15/204, D15/306.

### 7. TEACHERS

Francesco Giunta will give lectures and tutorials.<sup>1</sup> Laura Bini will help him.<sup>2</sup> Laura acts as a go-between to help students in their learning process, by lending a hand to prepare their tutorials and encourage them to actively take part in the class meetings. Students can contact the teachers during their office hours and by e-mail:

- F. Giunta – Tuesday from 4:00 to 6:00 p.m., building D6, room 3.01, [francesco.giunta@unifi.it](mailto:francesco.giunta@unifi.it)
- L. Bini – Wednesday from 4:00 to 6:00 p.m., building D6, room 3.28, [l.bini@unifi.it](mailto:l.bini@unifi.it)

### 8. CONTENTS OF CLASS MEETINGS

Hereafter aims and contents of each class meeting are briefly described. For each topic, we recommend some didactic material. In general, this material is a chapter drawn from one of the suggested handbooks above-mentioned in section 5 (or from other sources) as it is considered the most consistent with the approach that we propose in our class. Ask your teachers for a copy of all the recommended didactic material.

Additional readings, useful for delving into the topics debated during the lectures, are also suggested (anyway, they are not mandatory).

#### LECTURES

##### Lecture n.1

##### *What has it got to do with me?*

The financial statement analysis (FSA) is presented in a broad framework that helps understand what it is useful for and what it has to do with a financial professional's preparation. In this respect, the FSA is part of the fundamental analysis process, which aims at assessing a company's intrinsic (or fundamental) value. This value is the basis for determining stocks' *target price*, which is an estimate of a stock's future price based upon an earnings or cash flow forecast.

<sup>1</sup> Francesco Giunta is a full professor of Financial Accounting at the University of Florence, School of Economics and Management. He is a member of the Executive Committee of the Italian Academy of Business Administration and Management (AIDEA), a member of the Italian Society of Business Administration Educators (SIDREA), and of the European Accounting Association (EAA).

Francesco served as a Head of the Management and Accounting Department at the University of Florence (2004-2009) and as a Dean of the School of Economics and Management (2009-2013) at the same University. He was member of the Academic Senate of Florence University until October 2016. Francesco also acted as world vice-president of the International Association for Accounting Education and Research (IAAER) (2012-2014). Francesco taught in several universities and directed national research projects. He published papers in international reviews and he is editor-in-chief of *Accounting & Business Studies*, an associate editor of *Financial Reporting Journal*, and a member of the scientific committee of other Italian and foreign journals. For more information: [www.fargroup.eu](http://www.fargroup.eu).

<sup>2</sup>Laura has a PhD Degree in Management and Business Administration from Florence University. She teaches Accounting 101 at Florence University. She also taught abroad. Laura focuses her research on companies' communication to the financial market. She has published several papers in international journal and reviews. For more information: [www.fargroup.eu](http://www.fargroup.eu).

Looking at the practice, a company's fundamental value is generally measured by using the discounted cash flow method (DCF). In light of this, the FSA contributes to figure out the main drivers of a company's cash flows and risk conditions that affect a company's cost of capital.

Against this backdrop, the FSA is described as a process that is divided in a few steps that will be explored in the next lectures.

*Didactic material:*

- Penman, Chapter 1

*Additional readings:*

- Bartram S. M. and Grinblatt M., *Fundamental Analysis Works*, in:  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2670839](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2670839)

### **Lecture n.2**

*Let's do as Harry did*

We analyze the financial statements to understand how a company works. Therefore, an analyst needs to refer to a clear and simple model that represents the main features of a business, i.e. the elements of corporate performance that are the most revealing. Without referring to such a model, an analyst cannot properly use the several tools of analysis at his/her disposal.

The typical valuation practice of investors shows that this model should be based on a conceptual distinction between operating and financing activities. We will use this model to reconfigure (reengineer) the financial statements and identify statistics that effectively illuminate the relevant aspects of an entity.

*Didactic material:*

- Bergevin, Chapter 3
- Subramanyam *et al.*, Chapter 1

*Additional readings:*

- Barker R., *The Operating-Financing Distinction in Financial Reporting*, *Accounting and Business Research*, 4, 2010
- Nichols L.M., *An Investigation of the Effect of Reporting Changes Proposed by the AICPA on Lending Decisions*, *Journal of Applied Business Research*, n.2, 1997
- Matsumoto, K., Shivaswamy, M., Hoban, J., *Security Analysts' Views of The Financial Ratios of Manufacturers and Retailers*, *Financial Practice & Education*, fall/winter 1995

### **Lecture n.3**

*The grass is always greener on the other side of the fence*

As stated on good authority, accounting indicators are only informative when they are related to a valid point of comparison. Thus, an analyst has to compare a company's accounting data over time and with accounting data of other companies. Cross sectional comparisons, in particular, are crucial to assess the competitive positioning of a company, its business efficiency, and its strategic choices. For these purposes, a few techniques and tools can be used and different terms of comparison selected.

*Didactic material:*

- Bergevin, Chapter 4
- Risk Management Association, *Annual Statement Studies. Financial Ratio Benchmarks*, 2015-2016

*Additional readings:*

- Sharma R., *Comparing and Analyzing Financial Statements to Make an Investment Decision*, Vaasan Amattikorkeakoulu, University Of Applied Sciences, 2012
- <https://www.americanexpress.com/us/small-business/openforum/articles/financial-benchmarking-how-do-you-compare-to-your-competitors-1/>

### **Lecture n.4**

*From lag to lead*

The financial statement analysis results depend on the information the analyst is able to gather. The informational basis consists of financial and non-financial information. The latter is critical to depict the background that is necessary to interpret the accounting or financial data. The lecture's aim is twofold:

- To give a general picture of both kinds of information, with a specific attention to non-financial information
- To show where an analyst can find this information

*Didactic material:*

- Bergevin, Chapter 1, 2 and 5
- Stickney *et al.*, Chapter 1, Step 1, 2

*Additional readings:*

- Palter R.N., Rehm W., Opening up to investors, *The McKinsey Quarterly*, January, 2009

### **Lecture n.5**

#### *I won't get fooled again*

Once we have gathered information, we have to assess its quality. In particular, we have to evaluate the accounting data quality, because if the data quality is poor, the analysis' results will also be poor. In this respect, our lecture focuses its attention on the effects of accounting policies on the accounting system. Then, we will move to the potential actions of earnings management, pointing out the diagnostics to detect the presence of such actions.

*Didactic material:*

- Penman, Chapter 17
- Bergevin, Chapter 6 and Chapter 12 (p.248-260)

*Additional readings:*

- Beneish, M.D., The detection of earnings manipulation, *Financial Analyst Journal*, September-October 1999, p.24-36

### **Lecture n.6**

#### *Where money comes from and where it goes*

The above-mentioned model, which sketches the main aspects of a business, is applied to the balance sheet. In this way, we obtain a new statement that shows the main investments and financial resources of a company. Thanks to this statement, an analyst can correctly assess financial needs and profitability levels of a company.

*Didactic material:*

- Penman, Chapter 9

*Additional readings:*

- <http://www.gutwebsite.com/rbs?checked=FSR&page=rbs>

### **Lecture n.7**

#### *Money merry-go-round*

Through the reformulation of the balance sheet, an analyst pinpoints a company's net working capital (NWC). This indicator is an approximate but useful measure of the current financial requirement caused by the current operative activities. The cash flow of a company depends on changes in NWC over time. As a company's value depends on its cash flows, NWC is a terrific value driver, which an analyst should zero in on. Thus, we will pick the NWC apart to understand the main factors that impinge on it.

*Didactic material:*

- Bergevin, Chapter 9

*Additional readings:*

- Greenberg L., Liberating Cash Flow, *AFP Exchange*, April 2009, [www.AFPonline.org](http://www.AFPonline.org)
- REL, *Europe Working Capital Survey*, 2014, The Hackett Group 2014

### **Lecture n.8**

#### *Not only a flash in the pan*

The model that represents the main features of a business has also to be applied to the profit and loss statement. However, before reengineering this prospectus, an analyst should pick apart those costs and revenues that are abnormal with respect to what the company usually does. By segregating these values from the others, we obtain a normalized or adjusted (or current) measure of earnings that can be used to anticipate the future earnings, all

things being equal. Analysts talk about “earnings power” to mean a company’s long-term capacity to produce profit.

*Didactic material:*

- Subramanyam *et al.*, Chapter 6

*Additional readings:*

- Jagannath A.-Koller T., Building a Better Income Statement, *McKinsey&Company*, November 2013

### **Lecture n.9**

*Even Tony Soprano knows that!*

The adjusted earnings signals the basic profitability of a company. They are determined by operating and financial activities run by a company. The operating activities are at the core of profitability as they represent what a company should do for a living. Operating profit is influenced by a few accounting components that are based on managers’ estimates, like depreciation, amortization, and impairment of PP&E and intangible assets. These components make it difficult to compare a company’s profit over time and cross-sectionally. In order to overcome this limitation, analysts calculate a specific operating margin, which is called EBITDA. This margin makes operating performance comparison easier and, in addition to this, roughly signals a company’s capacity to produce cash flow from its current activities.

*Didactic material:*

- Penman, Chapter 9, p.301-312
- Stump P., Marshall T., Rowan M., McCreary R., Coppola M., Putting EBITDA in Perspective, *Moody’s Investors Service*, June 2000

*Additional readings:*

- CESR, *Recommendation on Alternative Performance Measures*, October 2005.
- Grant J. - Parker L., EBITDA!, *Research Accounting Regulation*, 15, 2002

### **Lecture n.10**

*Who is the king?*

As IASB incisively states: “Users of an entity’s financial statements are interested in how the entity generates and uses cash and cash equivalents. This is the case regardless of the nature of the entity’s activities and irrespective of whether cash can be viewed as the product of the entity, as may be the case with a financial institution. Entities need cash for essentially the same reasons however different their principal revenue-producing activities might be. They need cash to conduct their operations, to pay their obligations, and to provide returns to their investors.” That is the reason why, as an analyst, we have to accurately assess a company’s capacity to produce cash flow. For this purpose, we will outline a cash flow statement’s structure, which is coherent with the model that represents the main features of a business. This structure will be used to reformulate the cash flow statement, if a company presents this prospectus, or to prepare a new statement starting from scratch, if the prospectus is not encompassed in a company’s annual report.

*Didactic material:*

- Subramanyam *et al.*, Chapter 7

*Additional readings:*

- IASB, IAS 7
- Jones S., Romano C.A., Smyrniotis K. X., An Evaluation of the Decision Usefulness of Cash Flow Statements by Australian Reporting Entities, *Accounting and Business Research*, 25, 98, 1995
- Fernandez P., Cash Flow is a Fact: Net Income is Just an Opinion, *IESE Working Paper*, 2006

### **Lecture n.11**

*The fuel and the fire of cash flow*

Cash flow should be rooted in the operating activities of a company. Thus, an analyst must pay very close attention to measure the amount of cash flow that comes from the core business of a company. The nitty-gritty stuff is to spot the main drivers the operating cash flow depends on. Moving along this track, EBITDA and net working capital stand out as pivotal determinants of the operating cash flow.

**Didactic material:**

- Bergevin, Chapter 10
- Subramanyam *et al.*, Chapter 7

**Additional readings:**

- Ward T.J., Woodroof J., Foster B.P., A Research Note on the Issue of Non-Articulation and the Method Used to Calculate Net Operating Cash Flow, *The Journal of Applied Business Research*, January/February 2009

**Lecture n.12***When the cash is free*

The operating cash flow depends not only on the current operating activities run by a company, but also on the amount of investments a company makes to be competitive in its industry. An analyst is interested in measuring this amount, which is called, in the financial jargon, *capex*, i.e. capital expenditure. By adding *capex* to the current operating cash flow, we obtain the *free cash flow from operation* (FCFO). FCFO represents the available cash flow to reward a company's creditors and stockholders. For this reason, to assess a company's intrinsic value, the *discount cash flow model*, applied in *asset side logic*, takes into account free cash flow.

**Didactic material:**

- Subramanyam *et al.*, Chapter 7
- Peterson Drake P., *What Is Free Cash Flow and How Do I Calculate It?*, Florida Atlantic University

**Additional readings:**

- Copeland T., Koller T., Murrin J., Cash is King, in: *Valuation. Measuring and managing the value of companies*, McKinsey and Company Inc., Chapter 5

**Lecture n.13***The do-or-die struggle for growth*

Once they are reengineered, the financial statements must be interpreted to understand what the main features of a business are and how they do perform. In addition to this, they contain numbers in the form of absolute values. Absolute values are deceiving and cannot help you run time and cross-sectional comparisons. Therefore, we use reengineered accounting data to build some ratios. In light of this, the question is: where should we start from to run our ratio analysis?

Tons of pieces of research have shown that a company has to grow if it wants to survive and gain a competitive advantage in its business arena. Growth affects profitability and solvency, the two main strands of a company's management. Therefore, before focusing our attention on those strands, we have to gauge if and how intensely a company is growing, looking at its revenues and production capacity.

**Didactic material:**

- <http://thebusinessferret.com/key-financial-metrics/real-revenue-growth/>
- <http://www.money-zine.com/definitions/investing-dictionary/sales-to-fixed-assets-ratio/>

**Additional readings:**

- Smit S., Thompson C.M., Viguerie P., The do-or-die struggle for growth, *The McKinsey Quarterly*, 3, 2005

**Lecture n.14***Get the bang for your buck*

Free cash flow determines a company's fundamental value. The main driver of the free cash flow is operating profitability. Thus, an analyst must measure profitability very carefully, by using the right ratios. Among them, ROI (or RONA) is of paramount importance. Free cash flow can be roughly predicted by connecting ROI to a company's growth rate. However, calculating ROI is not enough: it is necessary to assess how the strategic choices directly influence the ROI amount. A widely adopted approach to ROI analysis shows that it mainly depends on capital productivity and return on sales. Both these determinants can be further analyzed, until we uncover the key «every day activities» of a company's business.

**Didactic material:**

- Subramanyam *et al.*, Chapter 8

*Additional readings:*

- Jiang B., Koller T., How to Choose between Growth and ROIC
- Selling T., Stickney C.P., The Effects of Business Environment and Strategies on Firm's Rate of Return on Assets, *Financial Analysts Journal*, January-February 1989

**Lecture n.15***When does a company go bust?*

A company can prosper and create value for its stakeholders only if its profitability goes with solvency. Solvency allows a company to pay its debt and distribute dividends. It can be assessed on two different but intertwined perspective: in the long-term, as financial solidity; in the short-term, as liquidity. The balance sheet and the cash flow statement offer an analyst precious hints to get his teeth into both these strands of a business, in particular, liquidity. In this respect, the different sections of these statements will be explored by using a selected number of ratios.

*Didactic material:*

- Bergevin, Chapter 8, 11 and 14
- Subramanyam *et al.*, Chapter 10

*Additional readings:*

- Goedhart M.H., Koller T., Rehm W., Making Capital Structure Support Strategy, *McKinsey on Finance*, Winter, 2006
- Boer G., Managing the Cash Gap, *The Journal of Accountancy*, October, 1999

**Lecture n.16***Let's put the jigsaw puzzle together*

As a company is a system, operating profitability and solvency are two sides of the same coin. To draw his conclusions, an analyst needs to lump together all the jigsaw pieces of the puzzle. The net profitability analysis offers the whole picture of a company and shows the relationships between operating profitability and solvency. The Return on Equity (ROE) ratio synthesizes the net profitability performance. Its level depends on three main factors: operating profitability, financial structure, cost of debt. When the latter one is lower than operating profitability, a company can increase its ROE by leveraging debt. This effect is usually called "financial leverage" or "trading on equity".

Net profitability levels are also consequential for a company's growth. In fact, net profit distribution to shareholders, in the form of dividends, affects a company's capability of growing without collecting new debt, with all the consequences on solvency.

*Didactic material:*

- Bergevin, Chapter 13

*Additional readings:*

- Selling T., Stickney C.P., Disaggregating the Rate of Return on Common Shareholders' Equity: a New Approach, *Accounting Horizons*, December 1990
- Subramanyam *et al.*, Chapter 8

**TUTORIALS**

In each tutorial, the topics presented in a lecture (or in a few lectures) are put into practice. While a lecture deals with some selected features of a topic, the tutorial offers the opportunity to cover other strands of the same topic, gaining a broader view of it.

To actively take part in tutorials, students should work on materials that will be signaled in the weekly newsletter. Il Sole 24 Group will be our target company (TC). We will analyze the "separate financial statements" of the parent, Il Sole 24 Ore S.p.A., focusing on three fiscal years: 2011-2012-2013. **Take your cue from each tutorial in order to prepare your term project.**

### **Tutorial I**

#### *Inside AIDA's secrets*

In order to create a panel of selected companies that are comparable with our TC, with respect to strategic and operative features, we have to use a qualified databank. Two of them are particularly interesting: Aida and Amadeus. Aida offers the opportunity to create large panels of Italian non-listed companies. Amadeus does the same for foreign companies.

During the tutorial, we will go through these databases, showing how a panel can be selected and accounting report prepared.

*Didactic material:*

- A practical guide to Aida data bank

### **Tutorial II**

#### *Depict the background for your financial statement analysis*

We will collect our TC's annual report and read the narrative sections of that report, picking apart the pieces of information useful to have a grasp of the company's:

- Competitive environment
- Strategies
- Key performance indicators
- Prospects

We should also look for analysts' or organizations' reports related to the above-mentioned information.

### **Tutorial III**

#### *Assessing a company's accounting quality*

We will scrutinize the balance sheet and the income statement of our TC, calculating the main red flags and the Beneish's M-score. The Beneish's model could also be applied to the financial statements of some notorious companies that were caught red handed during the last years (Parmalat, Mariella Burani, Finmatica, Enron, Worldcom, etc.).

### **Tutorial IV**

#### *Reengineering a company's balance sheet*

We should restructure the balance sheet of our TC, classifying assets and liabilities according to the model that represents the main features of a business. You should determine:

- net operating capital employed
- net financial position
- net worth

We will also have to analyze the net working capital, putting a finger on its determinants.

Running your analysis, we will refer to some selected companies that are comparable to our TC. We will focus on Finegil and Poligrafici. For this purpose, we will use Aida. A note should also be prepared in order to:

- explain how the panel was selected
- present the companies' balance sheet in a "common size" format.

### **Tutorial V**

#### *Reengineering a company's income statement*

We should restructure the income statement of our TC, classifying income and expenses according to the model that represents the main features of a business. Our aim is to determine:

- adjusted (normalized) net income
- EBIT

In addition to this, we will focus our attention on EBITDA (and EBITA), showing its determinants.

A comparison with main competitors' data will also be presented, resorting to an income statement in a "common size" format.

### **Tutorial VI**

#### *Preparing a cash flow statement starting from scratch*

Preparing a cash flow statement is not an easy task, in particular, if you have to start from scratch. Working on some accounting data, we will present the main steps one should take to draw up a cash flow statement. Critical issues and calculations related to each step will be clarified. We will also try to interpret the statement we have prepared by answering some crucial questions.

For this purpose, we will use the exercise entitled: *Is that plan financially sustainable?* Download it from our class website.

### **Tutorial VII**

#### *Reengineering a company's cash flow statement*

Taking advantage of the previous tutorial, we will reformulate the cash flow statement of our TC, adapting its GAAP-based statement to the model that represents the main features of a business. Dealing with reengineering is not a breeze. In particular, we have to pay very close attention to separate the operating values from the financial ones.

Some critical issues will be pointed out by measuring the reformulated cash flow of our TC against the reformulated cash flow statements of its comparable.

### **Tutorial VIII**

#### *Profitability analysis*

When you prepare a financial analysis report, first, you should assess if and how fast a company grows, taking into account different strands of a company's business environment.

Growth analysis will help us to run a profitability analysis of our TC. The analysis should cover the company's operating activity, following a DuPont approach. Sales margins and capital productivity should be scrutinized in order to understand the company's cost and profit drivers. The analysis should also scrutinize the net profitability, showing the connection between operating and financial aspects of a business.

A comparison with main competitors' data will also be presented.

### **Tutorial IX**

#### *Solvency analysis*

Profitability should be bolstered by solvency. Solvency analysis sheds light on a company's level of financial risk. In this respect, our attention will be devoted to the cash flow statement by means of specific ratios. We should also take into account the balance sheet to gauge the long-term financial conditions, in terms of debt load. A comparison with main competitors' data will also be presented.

## **9. GUIDELINES TO PREPARE A TERM PROJECT**

Your term report should have a professional slant, both for the presentation and the contents. You should focus on the comment rather than a mere description of accounting data or financial ratios that you have computed. The report should not also be teaching, with statements that explain what the tools, which you have used, mean.

Use graphs and tables only if they add some more information to the text. **The reengineered financial statements and the ratios you have calculated should be showed in an Appendix, at the end of your report.**

The report's structure is as follow (download more hints from the class website):

- Strategic background
- Assessment of accounting data quality
- Growth analysis
- Operating and net profitability analysis
- Solvency
- Conclusions



**10. CLASS MEETINGS SCHEDULE**

Lectures and tutorials previously described will be held according to this schedule.

week	month	day	activity	number	topic
I	March	27	Lecture	1	What has it got to do with me?
		1	Lecture	2	Let's do as Harry did
II		6	Lecture	3	The grass is always greener on the other side of the fence
		8	Tutorial	I	<i>Inside Aida's and Amadeus' secrets</i>
III		13	Lecture	4	From lag to lead
		15	Tutorial	II	<i>Depict the background for your financial statement analysis</i>
IV		20	Lecture	5	I won't get fooled again
		22	Tutorial	III	<i>Assessing a company's accounting quality</i>
V		27	Lecture	6	Where money comes from and where it goes
VI		29	Lecture	7	Money merry-go-round
VII	April	3	Tutorial	IV	<i>Reengineering a company's balance sheet</i>
		5	Lecture	8	Not only a flash in the pan
VIII		10	Lecture	9	Even Tony Soprano knows that!
		12	Tutorial	V	<i>Reengineering a company's income statement</i>
IX	May	26	Lecture	10	Who is the king?
		2 *	Lecture	11	The fuel and the fire of cash flow
X		3	Lecture	12	When the cash is free
		8	Tutorial	VI	<i>Preparing a cash flow statement starting from scratch</i>
XI		10	Tutorial	VII	<i>Reengineering a company's cash flow statement</i>
		15	Lecture	13	The do-or-die struggle for growth
XII		17	Lecture	14	Get the bang for your buck
		22	Lecture	15	When does a company go bust?
XIII		24	Lecture	16	Let's put the jigsaw puzzle together
		29	Tutorial	VIII	<i>Profitability analysis</i>
		31	Tutorial	IX	<i>Solvency analysis</i>

\* This lecture will be held on Tuesday at 2.30