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Departamento de Economia, Gestão e Engenharia Industrial

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A informação dada nos Relatórios Financeiros dos Analistas Portugueses

Portuguese Sell-Side Analysts' Reports. Can they deliver?

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Dissertação apresentada à Universidade de Aveiro para cumprimento dos requisitos necessários à obtenção do grau de Mestre em Gestão, realizada sob a orientação científica do Professor Doutor Joaquim Carlos da Costa Pinho, Professor Auxiliar do Departamento de Economia, Gestão e Engenharia Industrial da Universidade de Aveiro

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Palavras-chave

Analistas Financeiros, Relatórios dos Analista Finaceiros, Análise do Conteúdo dos Textos, Métodos de Avaliação de Empresas, Preço-Alvo.

Resumo

O presente trabalho propõe-se avaliar a importância dos analistas financeiros Portugueses testando para isso a fiabilidade no cálculo dos Price Targets e a capacidade informativa dos relatórios que produzem. A utilidade dos analistas financeiros tem sido há muito estudada, por norma através de duas perspectivas: avaliando as consequências do seu trabalho (reacção dos mercados às suas recomendações e estratégias de investimento baseadas nessas mesmas recomendações) e por outro lado considerando as variáveis exógenas que influenciam o seu trabalho (comportamentos tendenciosos e de "arrebanhamento"). Acreditamos que antes de avaliar a pertinência destas perspectivas, importa averiguar se através dos relatórios que produzem os analistas financeiros fornecem a informação que os seus utilizadores necessitam.

Para isso examinamos e codificamos 73 relatórios financeiros de empresas que integram o PSI20, testando-os em termos de informatividade e fiabilidade.

A capacidade informativa é testada em confronto com um relatório ideal (baseado nas conclusões do *Relatório Jenkins*).

Para testar a confiabilidade no cálculo dos Price Targets investigamos se o método e os parâmetros utilizados são expressos com clareza e se o processo de cálculo está em conformidade com aquilo que são os princípios teóricos aceites.

Keywords

Sell-Side Financial Analysts, Sell-Side Financial Analysts' Reports, Content Analysis, Valuation Models, Price Target.

Abstract

This paper studies the importance of Portuguese financial sell-side analysts' reports by testing reliability in firms' Price Target calculation and information aptitude (deliver ability) in the content of sell-side analysts' reports.

The importance of sell-side analysts reports has long been studied, mainly in two different perspectives: the consequences of their work (market price reactions, trading strategies based in analysts' recommendations) and the externalizations that influence their work (herding and bias behaviors).

We believe that before either perspective can explain their value, analysts through their reports should be able to deliver the information users need and offer coherent calculation that justifies the Price Targets.

We explore and encode the complete content of 73 reports from PSI20 listed companies, and apply consistency and reliability procedures to test them.

Informativeness is tested against an ideal report (built mainly from the Jenkins Report conclusions).

To test reliability in the Prices Targets calculations we investigate if the method and the parameters of the evaluation are clearly disclosed and if the calculative procedure is according to the theoretical conventions.

1. Introduction

Business in general and sell-side financial analysts' reports in particular affect people's life in an extensive way since they are directly related to capital allocation choices.

Assuming a world of scarce resources, the wrong choice in capital allocation enhances inefficiency and waste at the same time that constrains firms that promote productivity, support innovation and offer products and services that add value. An efficient resources allocation is therefore critical to a healthy and strong economy that can benefit society as a whole.

The same goes to the security markets, right choices denies cost effective capital to companies that endorse unproductive practices and help superior companies granting credit. The difference is between a liquid and efficient market and one being constantly destabilized.

To make these choices people need appropriate information so they can be able to judge the opportunities and risks of an investment. The collection, valuation and publishing of the information that has prospective importance regarding firms' current and future value are the main competences of a financial analyst. As a result it was established that financial analysts and the reports they create can by some means, represent and influence investors' beliefs and activities (Schipper, 1991; Lang and Lundholm, 1996).

Even though these are simple and common understood ideas there are several academic studies concerning analysts' work, and though not always obvious expressed, the importance and legitimacy of what they do seems the underlying question constantly trying to be address.

How can therefore we determine their value? Most academic literature and empirical research has been approaching this matter in two fundamental ways that we can describe as a *Neo-Classic Approach* and an *Over-Socialized View*.

1.1. The Neo-Classic Approach

Financial analysts play a central role in security markets in interpreting and disseminating corporate financial and other information (Lang and Lundholm, 1996), this idea summarizes what we can identify as a *Neo-Classic Approach*. By adopting an under-socialized view this approach argues that analysts' research can identify the real value of a security by dealing out with the available information (Savage, 1954), as a result we can see analysts playing an essential role in a semi-strong-form efficient market, as they collect, valuate and disclose information that has prospective importance regarding the firms' future value.

Abnormal earnings can in theory be obtained since as Grossman et al. (1980) observed market price cannot perfectly reflect all available information, justifying therefore analysts' contribution and compensation.

It seems therefore natural that the seminal studies in this area tried to determine market reactions to analysts' recommendations and whether investors can actually profit from the publicly available advices of security analysts.

Early on in 1933 Alfred Cowles, an economist at Yale wrote a study titled, "Can Stock Market Forecasters Forecast?" and concluded that investments recommendations did not add value. Today we know that the extraordinary period in which this research took place diminishes the impact of the results.

Limited academic research was made in the following decades until the 70s, where the works by Givoly and Lakonishok (1979, and later 1984), Groth et al. (1979) suggested the opposite of Alfred Cowles findings by showing evidences of positive abnormal returns due to analysts' recommendations.

The last three decades offered a mass volume of works regarding this theme, and most of them supported the idea of significant impact in the stock prices after analysts' (change in) recommendations suggesting their ability to select or influence stocks.

The world largest published stock advisory ranking - Value Line - allowed Holloway (1981 and 1983), to conclude that it incorporated valuable information and could lead to positive abnormal returns, given that “rank 1” stocks (top rated stocks) outperformed the market, even after the deduction of transaction costs. A related conclusion was obtained by Stickel (1985) who proved that even though Value Line rank’s changes affected common stock prices and consented modest return to investors in the first few days after the “announcement” date, “the ranking upgrades and downgrades were a response to large stock price movements previous to the change dates.”

Substantial returns, close to 3.5%, were also detected in a similar study by Liu et al. (1990) when analyzing the recommendations on the “New Street Journal” shown under the column “Heard on the Street”. For the column “Dartboard”, Barber and Loefler (1993), showed that the most highly recommended stocks earned a positive alpha of over 4% per year.

The empirical research of Womack (1996) is seen as truly significant since major improvements were made in the database and in the benchmark techniques used in the research. Using a sample of 1573 recommendation changes by 14 of the biggest U.S. brokerage houses, Womack reported that the three-day recommendation period returns are large and in the direction forecast by the analyst whether or not they are coincidental with other corporate news. Thus, they have important perceived information content. The average return in changes to “buy”, “strong buy” or “added to the recommended list” was 3%. This contrasts to new “sell” recommendations where the average reaction was larger (–4.5%). Nevertheless Womack failed to prove an ideal efficient market reaction since the prices continue to drift for weeks or months in the direction of analyst recommendation.

By means of recognizing accuracy in these studies it should be natural to admit the virtues of analysts’ recommendations and therefore respond to our papers query. However one relevant question maintains – can analysts be portrayed as a homogeneous class? Stickel (1992) seemed to address this question negatively

by proving that some brokerage teams supplied more accurate earnings forecasts than other analysts, attesting therefore a positive relation between analyst's reputation and performance.

Since 1997 it has been a habit that many brokerage houses and Investment Firms offer Price Target forecasts in addition to recommendations. Asquith et al (2003) reported interesting results, approximately 54% of analysts' Price Targets are achieved within 12 months and even if the target was missed, the average maximum (minimum) price observed for projected increases (decreases) was 84% of the Price Target. A different outcome came from the work by Bradshaw and Brown (2005) who found evidences of sustained ability to accurately forecast earnings but not Price Targets.

Gleason et al (2006) extending Loh and Mian (2005) work, documented opposite results by finding a positive association between earnings estimate accuracy and Price Target accuracy, suggesting that there is a positive association between earnings forecast accuracy and the profitability of trading strategies.

More recently Bonini et al (2009) work showed that Price Target forecasting accuracy is very limited, according to him prediction errors are consistent and analysts' research is systematically biased supporting past theoretical predictions made by Ottaviani and Sorensen (2006).

It is clear that throughout these decades, several papers tried to measure the value of analysts' recommendations, and even though the overall result suggests some kind of ability in both stock selection and market timing, there are several contradictory results in all the literature. Moreover recent events (*2008–2010 financial crisis)* will certainly add arguments to the impracticality of precise predictions in stock selection and pricing, and will show clearly the enormous importance of the market risk in the equity overall risk, and therefore the legitimacy of the Capital Asset Pricing Model (CAPM) assumptions.

In addition the research tools of these works have been also frequently subjected to criticism; the most common points to sample bias or imprecise data (Walker and

Hatfiel, 1996) and summarizes the difficulty for any empirical research apparatus to model the numerous amounts of variables that have influential power in determining the legitimacy and value of analysts.

But perhaps the most powerful critic regarding analysts' importance goes beyond the technical consistency of their studies and undermines the basic tenet of classical economic theory by doubting that analysts' investment recommendations reflect their rationally formed expectations and are made using all available information in an efficient manner.

1.2. The Over-Socialized View

Potential deviations from the rational *Neo-Classic* economic literature have long been documented. Some authors assume their nature is induced and not intentional this approach is rooted in the economics of information cascades (Sushil et al., 1992) and in the sociological processes of mimetic isomorphism (Sushil et al., 1992; Rao et al, 2001). According to this neo-institutional approach analysts do not engage in deep calculative procedures they merely follow each other and reveal profound biased behavior in their actions.

This herd conduct (mutual imitation) in the investment field had already been documented by Scharfstein and Stein (1990) and Welch (1999) who showed that analysts' recommendations are influenced by the recommendations of previous analysts and from prevailing consensus.

More recently in a similar approach Rao el al (2007), found evidences that "social proof - using the actions of others to infer the value of a course of action - creates information cascades in which decision makers initiate coverage of a firm when peers have recently begun coverage. Analysts that initiate coverage of a firm in the wake of a cascade are particularly prone to overestimating the firm's future profitability, and they are subsequently more likely than other analysts to abandon coverage of the firm."

Other studies showed evidences of a more intentional biased behavior, linked with

analysts' concern for reputation - Hong et al. (2000) found that inexperienced analysts are more likely to be ill judged for inaccurate earnings forecasts than are their more experienced counterparts leading them to "deviate less from consensus forecasts". This reputation effect can also explain why analysts release their forecast figures close to prior earnings expectations even against their own private information, a "play safe" behavior that was detected by Trueman (1994).

Apparently the lack of neutrality is well spread, proofs of a favoritism conduct were found even when choosing the stocks to follow Jegadeesh et al (2002) documented that analysts tend to prefer growth stocks with "glamour" (i.e., positive momentum, high growth, high volume, and relatively expensive) characteristics.

It comes with no surprise that analysts' recommendations tend to be over-optimistic when evaluating stocks according to Rajan and Servaes (1997) and that this conduct is more noticeable when the brokerage house has investment banking relations to the firm that is analyzed (Michaely and Womack, 1999). It is difficult to see this finding as remarkable since a major portion of the analysts' payment comes from their ability to generate revenues to the corporate financial arm of the investment bank.

However the most documented and the most effective evidence of a bias conduct can be found in analysts' buy-to-sell recommendations ratio, 10 to 1 up to the early 1990s (Pratt 1993); Womack (1996) points to 7 to 1.

The explanation is simple according to Phillips and Zuckerman (2001), analysts are themselves evaluated "by the same companies they follow". "Sell" recommendations will make the later confine access to information in an effort to avoid negative reviews. In this environment an inclination to engage in dubious acts can therefore be powerful. Results from a recent inquiry (CMVM, 2002) into Portuguese Investment Firms analysts revealed difficulties in accessing companies' information after a recommendation seen as adverse.

As we have seen until now the overall academic literature as treated analysts in two distinct ways: as rational calculators delivering updated information to the

market assuming a *Neo-Classic* economic approach and as irrational agents following each other and engaging in dubious conducts in a *Neo-Institutional* sociologist perception.

Our work questions if any of these perspectives is able to capture the importance of analysts' work. Moreover we consider that a contradiction issue ascends from them: if the herd behavior is refuted, we are admitting that analysts tend to have different opinions and therefore we recognize in a paradoxical way the impossibility to treat them us a homogeneous group that allows a consistency study. In other words how can we evaluate an investment strategy that is built around analyst opinions if their opinions are inherently dissimilar? How can anyone profit from an analysts' recommendations strategy if they differ in their evaluations? Coelho (2003) looking at the Portuguese stock market found that different reports for the same company, issued in the same day have an average gap between the Price Targets of 12%, this value ascends to 21% when there is a 10 days gap.

It seems therefore natural that some authors tried to escape this dualistic perspective (*Neo-Classic* vs. *Neo-Institutional*) about the role analysts have in the financial markets by proposing a new approach - the *Framework View*.

1.3. The Framework View

At this moment we can summarize academic research that aims to describe the importance of financial analysts in two categories, a) attempts to capture and understand the effects of their work by modeled neo-classic structures and b) a constant unveiling of exogenous variables that cannot be portrayed by these models.

Beunza and Garud (2005) work acknowledging the narrow limits of both perspectives and the impossibility to combine them (as they are inherent contradictory), proposed a different approach.

By recognizing that none of these theories can fully explain the most important value that institutional investors assume to get from the work of analysts (access to industry knowledge and written reports, according to fund managers' opinion surveys[1]) this paper proposed that analysts should be seen as frame-workers builders, following the work by Goffman (1974). Frames can be seen as cognitive tools that organize reality and direct action, in the words of Kuypers (2009) they "induce us to filter our perceptions of the world in particular ways, essentially making some aspects of our multi-dimensional reality more noticeable than other aspects. They operate by making some information more salient than other information."

Carrying this view into the context of the stock market "a map or frame helps categorize a firm and places it within a larger industry context including its competitors, collaborators, potential entrants and its customers.", Daniel Beunza and Raghu Garud (2005).

Pursuing this approach we can see analyst generate value by providing a road map, in other words a conceptual structure that can help their clients to understand a company and access their potential value, or us Tsao (2002) sees it, "In the end, stock ratings and target prices are just the skin and bones of analysts' research. The meat of such reports is in the analysis, detail, and tone. Investors who are willing to spend the time can easily figure out what an analyst really thinks about a stock by reading a research report."

Our work departs from this assumption that analysts are indeed best portrayed and best valued as frame-workers and that the ability to establish a common space of understanding with their clients is linked with the quantity and quality of the information provided. Information helps investors build frames and those mental maps help them feel more comfortable with their actions. For this reason

[1] *Institutional Investor* surveys more than 3,400 institutional investors annually. The major found is that investors consistently rank industry knowledge and written magazine reports as the more important attributes from analysts work, more than stock selections and earnings estimates (see "What Investors Really Want", Institutional Investor 1998-2009, Appendix A).

analysts can play an important intermediary function in the financial markets by providing enlightening reports (we remind that industry knowledge was the most voted aspect taken from analysts work), that more than offering recommendations about whether to sell or buy a stock they help investors knowing a company and evaluating[2] by themselves. We can conclude that a precondition for reports clients to establish frames and evaluation conclusions, is that a wide set of information is provided.

The main point from which departs our research can now be captured and summarized in the following research propositions:

> #1*Frame-works are cognitive tools that allow investors to act.*
>
> *#2 Information allows investors to create frame-works.*
>
> *#3 Analysts are important if they provide the information reports users need to build frameworks.*

In this line of thought we will examine the content of analyst written reports (in the PSI20 context) trying to determine if Portuguese analysts can provide the information users need and at the same time we will scrutinize the calculation apparatus they use to determine the Price Targets, by doing so we hope to offer significant elements to evaluate analysts' works importance, virtues and faults.

The remainder of this paper is structured as follows. The next section discusses prior research regarding the content of sell-side analysts' reports and the methods they use to evaluate companies. We then set the theoretical framework of this work and the methodology used in our empirical research. In the following section, we describe the sample used and report some summary descriptive statistics from

[2] For the purpose if this work we assume that to evaluate investors need to engage in calculate procedures, and calculation is a process of associations (Callon 1998). Value is therefore identified only by a preliminary categorization followed by the use of specific metrics that allow comparison. Hence, first investors try to acknowledge the class of the company (i.e. in each group it fits) and next they apply particular valuation measures that are built-in according to that category.

it. In section *5* we discuss our empirical results and last section summarizes conclusions and the main contributions of this paper to the existing literature.

2. Prior Research

2.1. Information Aptitude

Information in sell-side analysts' reports has been the subject of several academic works, mainly in two distinct approaches: a) the data analysts use (inputs) to produce the reports and the information provided (outputs) by them and b) the information that should be provided to reports' users.

Regarding the first approach and considering these reports represent the final output of analysts' work and illustrates their firms' value beliefs it seems natural the use of quantity data to build them, Horngren (1978) showed evidences that the annual report is the most important source of information to analysts, and that the firms' income statement is the most important component they use. A similar conclusion came from Chang and Most (1985), according to their research U.S. analysts rank the income statement the balance sheet, and the statement of changes in financial position as the most important parts of the annual report.

In more recent times and perhaps as result of the rapid changes affecting businesses and the increasing relevance given to intangible assets and human capital, several academic studies allow us to believe that a different trend is growing. Recently Rogers and Grant (1997) reported that "financial statements provide only one-quarter (26%) of the information cited by analysts" and that "the MD&A (Management Discussion and Analysis) section of the annual report is an extremely important section in terms of the information cited" in these reports.

This view is shared by the work of Dempsey et al (1997) that brought some interesting conclusions regarding the information that analysts use. These authors using a balanced scorecard framework created a list of sixty-three financial and

non-financial key performance indicators, they then surveyed a number of sell-side financial analysts by questionnaire. The analysts were asked how frequently they used each indicator when trying to forecast the firms' future performance. The major finding was that financial analysts to a great degree identify the value of strategic indicators measures "to assess long-term financial success of companies."

This behavior in which analysts rely on information that is well beyond the conventional financial data, and extensively consider non-financial information (company's risks, quality of the management and strategy, competitive position etc) was also identified by Previts et al (1994) in their 479 sell-side analysts' reports content analysis. The conclusion of Breton and Taffler (2001) that analyst see information about firm's management and strategy as main drivers to their 'buy', 'sell', and 'hold' recommendations, should therefore come with no surprise.

Abdolmohammadi et al. (2006) deepened this subject and by classifying their sample in two different industries, intangible asset intensive industries (which included "Internet" and "Telecommunications and Network Equipment") and tangible asset intensive industries (which included "Auto Manufacturing and Auto Parts" and "Textile and Apparel") found that analysts following firms in the first group used a higher proportion of non-financial data and a lower proportion of financial data than analysts following firms in the second. This allowed the conclusion that the growth scenario of the industry can determine the information that analysts use.

It is clear that analysts rely in a wide variety of information to build their reports, ranging from the more conventional data such as the financial statements to pure intangible data; and since the main objective of analysts' reports is to provide investors with information that is helpful in deciding whether and at what price to assign, or continue to assign, resources to a particular company, one important question emerges – is there a perfect report that can fulfill this objective?

Suggestions that financial reports fail to attend this gold are not new (Lee and Tweedie 1977, 1981, 1990; Rimerman 1990).

In the past years a large number of institutions and researchers have been committed to generate a debate to determine the needs of the users of financial reports and the best way to address them. This debate acknowledges that business report cannot be unaffected by the rapid changes affecting companies. New business environment and practices seems to need new ways of measuring the performance and new kinds of information on which the management can rely. The reports apparatus must therefore keep up with the shifting needs of the reports users.

The Special Committee on Financial Reporting, aka *Jenkins Report*, (AICPA 1994) is considered a crucial effort in improving the utility in business report. By acknowledging the fundamental changes affecting business environments the Committee's work objective is “analogous to the product and service redesign undertaken by many successful businesses to meet customer needs better.” Overall “the Committee undertook a comprehensive study to determine the information needs of users and to identify the types of information most useful in predicting earnings and cash flows for the purpose of valuing equity securities.”

It is generally established that the world is eager for information; this study accepts this fact and recognizes “that users have a wide … insatiable appetites for information. When asked, users frequently say they want all possible information”. Again we acknowledge the *Jenkins Report* as the state of art in this field of research, by making clear, what kind of information is in fact important and used in the decision making process. Three techniques were used to distinguish between the types of information that are needed and the types that are interesting but not essential:

- First, the Committee developed a framework of information needs based on how investors value companies and how creditors assess the prospect of repayment. It considered information consistent with and central to the framework to be more important and other information less important.

- Second, the study sought data about the relative priority users place on different kinds of information, which helped the Committee rank potential improvements in business reporting.
- Third, the study sought data indicating the percentage of users that believe in one idea or another. Areas with the highest support suggested more important information. *(extracts from the Jenkins Report)*

After distinguish between needed information and nonessential information this study developed eight projects that together provided the truly essential information users need:

1) Study and analysis of documents written by users or based on research directly with them about their needs for information.

2) Analysis of business and investment models.

3) Meetings with the Committee's investor and creditor discussion groups.

4) Meetings with (a) the Financial Accounting Policy Committee of the Association of Investment Management and Research (AIMR), a group that represents portfolio managers and analysts, and (b) the RMA Accounting Policy Committee.

5) Meetings with other investors, creditors, and advisors.

6) Research sponsored by the Committee about the types of information included in analysts' published reports about companies.

7) Research sponsored by the Committee about information supplied voluntarily to users in addition to that required in business reports.

8) Survey of users about their information needs.

In this effort to improve business reporting the Committee offered key points that should be capture, for all intents and purposes reports must “focus more on factors that create longer term value, including nonfinancial measures indicating how key

processes are performing" and must "better align information reported externally with the information reported to senior management to manage the business". In addition it is essentially they provide "more information with a forward-looking perspective, including management's plans, opportunities, risks, and measurement uncertainties".

In 2001 the Financial Accounting Standards Board (FASB) work: Improving Business Reporting: Insights into Enhancing Voluntary Disclosures (2001) a follow-on to the work of the AICPA also recognized that "traditional financial statements do not capture — and may not be able to capture — the value drivers that dominate the new economy". This work was focused in the study of voluntary disclosures of business information and the main objective was to ensure and "explore(s) some possible approaches that might improve business and financial reporting". The outcome was pursued by providing evidences "that many leading companies are making extensive voluntary disclosures and by listing examples of those disclosures."

These examples were extensive valuable to our own research by permitting a precise illustration and description of the information categories the users of reports need.

A close and detailed reading of these two works allows us to summarize their final conclusions, to meet users' changing needs, business reporting must provide:

- Financial Statements elements.
- More information with a forward-looking perspective, including management's plans, opportunities, risks, and measurement uncertainties.
- Focus more on the factors that create Long Term Value, including non-financial measures indicating how key business processes are performing.[3]

[3] While companies struggle to accomplish financial survival and success, industries are meanwhile reshaping to create the new winners and losers, the ability to set targets and action to ensure long term sustainability is the idea behind *Long Term Value Creators* Category which will be coded accordingly.

- Business data (for example, high-level operating data and performance measurements that management uses to manage the business).
- Management's analysis of business data (for example, reasons for changes in the operating and performance-related data, and the identity and past effect of key trends).
- Management's perspective. Many users want to see a company through the eyes of its management to help them understand management's perspective and predict where management will lead the company.
- Separately reporting on each business segment of a company's business having diverse opportunities and risks. Segment information provides additional insight into the opportunities and risks of investments and sharpens predictions.
- Background about the company (for example, broad objectives and strategies, Mission and Values, scope and description of business, products, costumers etc.).
- Information about management and shareholders (for example, directors, management, compensation, major shareholders, and transactions and relationships among related parties).
- The relative reliability of information in business reporting. Users need to be able to distinguish between information that is highly reliable and that which is less reliable.
- A focus on measurement to help users understand a company's performance relative to that of competitors and other companies. While descriptions of business events are important, numbers are important too. Management should disclose the measurements it uses in managing the business that quantify the effects of key activities and events.
- Information about human capital and intangible assets that have not been recognized in the financial statements.

This last point, the importance of human capital and intangible assets, is only mentioned in the FASB work, according to them “intangible assets are considered to be of increasing importance to companies and investors today”, and

nevertheless the difficulties in valuing them, there seem to be no doubts regarding the importance of their presence in business reporting. Our paper shares this idea which is also shared in Blair and Wallman (2001) and Upton (2001) extensive work.

As previously stated we consider that analyst importance is connected with their ability to satisfy reports users. These two seminal works will be the departing point for our empirical research concerning the information aptitude (deliver ability) in the content of sell-side analysts' reports. Our choice recognizes therefore the main focus, both these works have on clients needs, and also acknowledge the wide scope of agreement these studies have on the information categories that are considered vital to capital allocation choices. Also acknowledged is the focus of both works on users that follow fundamental approaches; this is of extreme importance since our research is centered in analyst financial reports and not all users rely on them when making their capital allocations on the stock markets (technical investors feet perfectly in this category).

It is also important to mention that even thought the focus of the *Jenkins Report* research was on the information companies should provide to meet investors and creditors needs the conclusions can be shared with other types of business reporting - especially sell-side financial analysts' reports who as previously stated are largely driven by companies financial reporting and are for that reason seen as a strong proxy to corporate disclosures.

Moreover, it can be strongly argued that since both instruments of report aim for similar users and share identical proposes their readers' needs can be considered as identical.

2.2. Valuation Models

Users of reports and investors in general rely on sell-side financial analysts' views when forming opinions about the absolute and relative value of the companies they follow. Analysts can use a large variety of approaches to value them:

- Apply a multiple to the company's current or projected earnings, cash flows, or adjusted reported equity.
- Project the company's future cash flows and residual value and discount at a risk-adjusted cost of capital.
- Add to or subtract the estimated current or fair values of non-operating resources or obligations from the present value of future core earnings or cash flows.
- Total current or fair values of the company's major assets, and subtract the current or fair value of the company's debt.
- Identify recent favorable or unfavorable developments that are not yet reflected in the market price.
- Identify probable short-term price changes through indicators involving financial measurements, such as the momentum in the company's earnings.

The first four approaches can be seen as fundamental analysis and the last two as technical analysis. These are the two main schools of thought regarding the evaluation of stocks. Fundamental analysis departs from a firm's financial statements and from the surrounding economical environment and tries to determine the intrinsic value of a stock. On the other hand, technical traders departing from an efficient market hypothesis believe there is no reason to analyze a company's fundamentals because they are all accounted for in the stock's price. Technical analysts does not attempt to measure a security's intrinsic value but instead uses stock past charts to identify patterns and trends that may suggest what a stock will do in the future. Arnold and Moizer (1984) found even so that this method is far less perceived useful to analysts, and that they strongly rely on fundamental analysis for appraising stock. Their survey found that fundamental analysis was “usually” or “almost always” used in 96% of the times by analysts.

Within fundamental analysis there are also a large variety of techniques to evaluate stocks, the main alternative is between methods that apply multiples and methods that involve future payoffs and therefore the use of forecasts (multi period methods).

It has been argued that looking at accounting earnings capitalized by a P/E[4] ratio (a multiple method) is a static approach to evaluate a firm, and that share valuation should be supported on forecast discounted cash-flows (CFD), this technique though respected by financial theorists is not frequently used according again to Arnold et al. (1984).

Barker (1999) fifteen years later also argued that this alleged theoretical superiority of multi period valuation models finds no support in evaluation practice, according to him analysts and fund managers “show a preference for 'unsophisticated' valuation (methods) using, for example, the dividend yield rather than the dividend discount model” and both groups rank the PE model and the dividend yield model as the most important, and both groups rate the DCF and dividend discount models as unimportant”. This reported use of profitable measures to evaluate stocks justifies the conclusion drawn by Previts et al (1994) research; according to them analysts base their recommendations primarily on an evaluation of company income, relative to balance sheet or cash flow evaluations.

Bradshaw, M. (2002) looked deeper and found, in a sample of 103 U.S. analysts reports, that the most favorable recommendations (and Price Targets) have a higher probability to be justified by price-earnings ratios and expected growth while the least favorable recommendations are more likely to be justified with other qualitative.

More recently Asquith P. et al (2005), investigated a sample of 1.126 complete analysts’ reports written by 56 unique sell-side analysts from 11 different investment banks covering 46 industries, and corroborated that “most analysts use a simple earnings multiple valuation model. Only a minority use Net Present Value or other discounted cash flow approaches favored by finance textbooks and MBA curriculums.” Still in accordance to their work, “99.1% of analysts mention they use some sort of earnings multiple” and “only 12.8% of analysts report using any variation of discounted cash flow in computing their price targets”.

[4] P/E or PER (Price-to-Earnings Ratio) = Price Per Share / Annual Earnings Per Share

It is commonly assumed that analysts are increasingly paying more attention to quality data. We believe that consequently this trend should be identified in the methods used to evaluate stocks. The idea is simple if analysts rely more on accounting information they should provide a present value analysis approach, by the other hand a gradually use of non financial data should lead to a higher forecast ability and therefore allow the use of multi period methods of evaluation.

It is possible to recognize some signs of this trend, Demirakos et al (2004) for the UK, when studying the valuation methodologies contained in 104 analysts' reports, found that “analysts typically choose either a PE model or an explicit multi period DCF valuation model as their dominant valuation model”. Also Bradshaw (2002) reported new price-multiple heuristics recently being used by analysts – such as the PEG*[5], which is equal to the P/E ratio divided by the expected earnings growth rate (Asquith research pointed only to 1% of the analysts using this method).

A common use of multi period models was already detected by Block (1999), who tried to determine the methods analysts use by an interview approach using a sample of 297 responses by analysts’ memberships of AMIR (Association for Investment management and Research). The main findings were that analysts consider earnings and cash-flows to be more important than book value and dividends and that the EVA™[6], also a multi period evaluation approach, is the most used (when confronted with the dividend discounted model and the capital assets pricing model). This finding supported also prior survey based research from Pike et al (1993) for the U.K. and Germany markets.

At this moment it is possible to concede that even though multi-period discounted cash-flows and residual value methods have a recognized academic authority (Penman, 2001; Copeland et al., 2000 and Palepu et al., 2000), analysts have been making their valuation estimations based more frequently in multiple methods (Barker, 1999; Arnold et al., 1984; Pike et al., 1993; and Block, 1999).

More recent works allows us to believe that analysts continue to choose as the

[5] PEG (Price/Earnings To Growth ratio) = PER / Annual EPS Growth

[6] EVA (Economic Value Added) is Net Operating Profit After Taxes (or NOPAT) less the money cost of capital

"prevalent" model the PE approach but are gradually using more frequently DCF models and more "exotic" methods in their work. Moreover Demirakos et al (2004) found evidences that analysts use tailored evaluation methods according to the firm's sector circumstances.

Remarkable and puzzling are Cavezzali (2007) conclusions, her empirical study on the content of reports from Italian stock market reported that in about 70% of the reports it was not possible to understand clearly the evaluation method used. However the impact of this result is somehow diminish by Asquith et al (2005) findings that no correlation exists between valuation methodology and either analysts accuracy or the market's reaction to a report.

In the spirit of our work we believe Cavezzali finding to be of extreme importance. Well-organized financial markets should promote well-organized information; therefore analysts' importance should be linked to the ability to issue clear information. Caring in mind that we can only judge the merits of things that can be identified, our work will evaluate if analysts make clear the model they use to evaluate the companies and additionally we will examine if the calculative procedure is correct (meaning differences between valuation theories and valuation practices used).

3. The Methodology

Given the absence of an earlier theory and the lack of previous information around the subject of this work our general approach was an inductive one. This meaning we moved from the specific to the general, so that particular occurrences could be observed and then combined into a larger description or general statement. In other words we gathered and examined data in search for patterns that consent the development of conclusions; by doing so we diverged from a cause/effect analysis of the phenomena and focused on a more descriptive approach. Our choice was reinforced by the fact that this is the first paper regarding this theme for

the Portuguese Stock Market, we therefore moved with extra care and tried to avoid the common error of mistaking causality with coincidence.

As mentioned before, the main research objects of our work are financial analysts' reports, these sources of information although being one of several means of communication used by analysts are nevertheless "the only extensive trace of the analyst's work" (Breton et al 2001), their examination emerges as the best way to reach our objective. Portuguese reports were therefore explored in two different ways:

a) by evaluating their ability to deliver the information reports users need,

b) by exploring the methods analysts use to evaluate firms and if those procedures are clear and if the calculative apparatus is truthful.

3.1. Information Aptitude

Regarding our first purpose we used content analysis as our methodology, here defined as a research method that uses a set of procedures to make valid inferences from text (Weber 1990). Although this method is not perfectly design to offer statistical and calculative results it is nevertheless fitted for our aim - textural investigation in a context of rich data and complex information substance. Moreover this methodology is principally suitable because of its unobtrusive nature in analyzing narratives and information (Krippendorff, K. 1980). Content analysis has also the advantage of allowing a focus on analysts' reports, the concrete substance of analysts' works, and therefore eliminates the possibility of dubious interpretations, such is the case with direct interviews and questionnaires, where analysts' responses may be self-serving and fail to supply real insight into what they actually do in practice.

There are numerous works that use content analysis methodologies in accounting and financial reporting areas. Jones and Shoemaker (1994) mentioned an amount of 35 studies, between analysis made on annual reports, legal texts, letters of

comment, standards and training manuals, government reports and testimonies before commissions.

More recently the work by Smith and Taffler (2000) selected this methodology to examine if the firm's discretionary narrative disclosures measured its financial risk and found “that the chairman’s statement is highly predictive of firm failure”. In a close study, Abrahamson and Amir (1996) adopted a word-based content analytic approach focused only in negative references and their consequences in the company’s performance.

Looking strictly to the content study of sell side analysts’ reports, there have been a large number of techniques being used by researchers, the most common is to use disclosure indexes this is the case of two recent studies (Orens and Lybaert, 2004; Arvidsson, 2003) that compared the content of sell-side analysts’ reports to the firms’ annual reports. Already in 1997 Roger and Grant tried to access “the relevance of information provided in the annual report by investigating a sample of 187 sell-side analyst reports”.

Related procedures have also been conducted with the objective of examine the use of indicators of intellectual capital (Flostrand, 2006; Arvidsson, 2003 and Abhayawansa S., 2009) and the use of non-financial information in the context of analysts’ reports (Fogarty and Rogers, 2005; Previts et al, 1994).

Commonly the extent of disclosure (i.e. quantity) has been used as a proxy to the quality of disclosure, but the increasing use of this technique has always been accompanied by an intense debate regarding this measurement of quality. Many have argued that for the purpose of inference, frequency is not necessarily related to the importance of assertion, in other words quantity cannot be the only measure of quality and therefore results must rely on a more adequate evaluation (Beattie et al, (2001; 2002a; 2002b; 2004).

Though we will return to this subject later (well expressed and long reviewed in Beretta and Bozzolan, 2008 work), it is possible to indentify, in the seminal research of Govindarajan (1980) regarding the types of information (cash-flow vs.

earnings) used to justify recommendations, an attempt to escape this conflict by using “a combination of counting the frequency of occurrence and the researcher’s subjective assessments” when making inferences form the text.

Since the early 80s with the dissemination of computers the use of automated content analysis software has widespread. Normally data from manual content analysis is taken in a hard and labor intense process limiting the sample size. Computers software has been a resourceful tool, it adds coherence and quickness to the all process, and has been used in several studies (Smith and Taffler, 2000; Roger and Grant, 1997; Breton and Taffler, 2001; Abrahamson and Amir, 1996).

The impossibility of an artificial replication of the human knowledge, i.e. not only syntax but also semantic control (Searle, 1980), summarizes the obvious limitations of these tools. An interesting approach to deal with manually and automatically restrictions has been to use both techniques (Hussainey and Walker, 2008).

The several techniques described here adds truth to Satu and Kyngas (2007) words that “the challenge regarding content analysis is the fact that it is very flexible and there is no simple, ‘right’ way of doing it” and justifies Weber’s (1990) conclusion that researchers must evaluate what research apparatus is most appropriate for their particular problems.

Our content analysis methodology can be seen as a *Discourse Analysis*, in the words of Neuendorf (2002) a process that “engages in characteristics of manifest language and word use…through consistency and connection of words to theme analysis of content and the establishment of central terms.” Our proposal was to make a deep and complete reading of the financial analysts’ reports in search for words in sentences (recording units) that can connect to categories (information units) that have a recognized importance for reports users, allowing therefore an evaluation of the reports information ability.

All our data was taken directly from analysts’ reports in a hand code process, by using a non-computer reading of the texts and allowing a multi-words meaning

analysis we hope to provide a more wide-range and content detailed analysis than single-words researches like Previts et al. (1994). Also our examination of context allows specific classification of information and avoids relying on archetypal significances. For example, the word "property" seems always in reference to a balance sheet assets (a land), but it might appear in an intellectual, brand/ patent discussion.

We already seen that investors strongly rely on sell-side financial analysts' forecasts when making their investment decisions (Clement and Tse, 2003), and they also see financial analysts reports as a proxy to business reports, bearing this in mind we will confront our sample results against an ideal business report.

As previous stated we acknowledged the major contribution of both, the *Jenkins Report* (AICPA, 1994) and the Improving Business Reporting: Insights into Enhancing Voluntary Disclosures (FASB, 2001), in determining users' needs for information and consequently the ideal report. The conclusions of these reports combined with the examination of a pre-sample were the departing point for stabling our categories.

The use of these authoritative reports for determining the kind of information users need and therefore build a framework that allows an analysts' reports content analysis is not new. For this reason our empirical research has resemblances with the work made by Nielsen (2008), her extended review of 5 authoritative reports within the business-reporting debate, like ours, offers agreement on several themes who bear information perceived as important to reports users. The categories elected cover a wide range of information from the conventional financial and accounting data to more exploratory and forecasting oriented ones.

Given that we also recognize the enormous changes affecting business and the increasingly importance of "Intangible assets" as value driver for the economical growth (Blair & Wallman), we added an "Intangible Assets / Intellectual Capital" category to our framework, despite the fact that this category is only stated in the FASB Report.

A content financial report prototype that can be seen as ideal should bear information regarding the categories synthesized in table a.

Table 1 - Proposed Business-Reporting Categories

	Categories	JR	FASB
1	*Maps and financial statements*	X	
2	*Financial data*	X	X
3	*Management's operating data*	X	X
4	*Management's analysis*	X	X
5	*Risks and opportunities*	X	X
6	*Long term value creators*	X	X
7	*Background information*	X	X
8	*Comparable measures*	X	
9	*Segment information*	X	
10	*Corporate governance / Information about shareholders*	X	X
11	*Intellectual capital / Intangible assets*		X
12	*Analysts analysis / opinion*	X	

In order to provide a common ground of understanding Table 2 reviews the most important of these categories by reproducing the ideas exposed in the *Jenkins Reports* and the examples given by the Improving Business Reporting: Insights into Enhancing Voluntary Disclosures (FASB, 2001).

Table 2 - Categories Review

Categories	Jenkins Report	FASB
Management's operating data	*"High-level operating data and performance measurements that management uses to manage the business"*	• *Plant capacities by product, including the past year's additions to those capacities and the additions scheduled for the upcoming year.* • *Details of growth in market share in all major regions and countries.*
Management's analysis	*"Users seek management's perspective about the businesses it manages for three reasons. First, management is closest to the businesses and therefore often the best source for company-specific information. Second, management influences a company's future direction. Thus, understanding management's vision for the company and its plans for the future provides users with a valuable leading indicator of where management will lead a company. Third, management's perspective provides users with valuable information to evaluate the quality of management, which also may be a leading indicator of the company's future performance."*	• *Supplemental quarterly analysis of volume, price, and cost trends by segment* • *Explanation that the increase in gross margin results from cost declines and changes in the product mix.*
Risks and opportunities	*"opportunities and risks, including those resulting from key trends"* *"considerable insight into a company's opportunities and risks, including growth and market acceptance, costs, productivity, profitability, liquidity, collateral, and many others."*	• *Discussion of the risk of foreign currency exchange rate fluctuations on sales and profitability* • *An in-depth discussion of the key business risks facing the company.*

Long term value creators	*"Adopting a longer term focus by developing a vision of the future business environment. Provide users with a longer term focus about the activities that build shareholder value and protect creditors."*	• *Description of the company's long-term performance objectives.* • *Identification of the company's innovation goals*
Background information	*"Reporting under the model would include information about a company's broad objectives and business strategy."* *"The nature of a business refers to the types of products or services offered, the methods of producing or delivering those products or services, the number and types of suppliers and customers, the locations of facilities and markets, and other factors that describe the activities of a business."*	• *Discussion of the company's vision and values.* • *Detailed summary of the company's history and major milestones.*
Comparable measures	*"Users do not evaluate a company in a vacuum. Rather, they usually evaluate several companies at once. Users usually are deciding about which of a myriad of companies in which to invest — their investment options rarely are restricted to a single company. Further comparing companies, particularly competitors, is useful in assessing relative strengths and weaknesses."*	• *Market position for manufacturing and marketing personal computers in the United States and worldwide* • *Percentage return on invested capital compared with that of the industry.* • *Performance (benchmarked against many of the company's peer companies) for revenue growth, earnings growth, cash flow, ROE, and total shareholder return.* • *Comparison of product growth rates with those of the industry* • *Comparison of selected benchmarking data* • *Identification of competitors and product category market shares*
Segment information	*"For users analyzing a company …information about business segments often is as important as information about the company as a whole."* *"There are many bases on which to segment a company's activities. They include industry, product lines, individual products, legal entities within a company, geographic based on where a company produces products or delivers services, geographic based on where a company sells its products or services, and others".*	• *Graph displaying breakdown of sales by distribution method, for example, deliverable liquids and packaged products, and sales by markets/industries served.* • *Quarterly changes in physical volume of product by business group and by geographic location of customer, expressed as percentages.*
Corporate governance / Information about shareholders	*"they find information in the following categories useful: Identity and background of directors and executive management; the types and amount of director and executive compensation…; transactions and relationships among major shareholders, directors, management, suppliers, customers, competitors, and the company management compensation."*	• *Disclosure of principal stockholders and creditors by name.* • *Composition of individual and institutional shareholders by percentage of ownership.*
*Intellectual capital / Intangible assets**	*N/A*	• *Patent history disclosing patent applications and awards for a subsidiary that manufactures parts.* • *Description of new research and development programs to reduce fuel consumption and to improve the recyclability of materials.*

An essential idea in content analysis is that numerous words of the text can be classified into fewer categories (Weber 1990). The next step we have taken was to group together several concepts/words that are directly connected to our categories (Table 3), this procedure will create a set of sub-categories. For this purpose we extended Christina Nielsen (2008) codification framework by adding new words and vocabulary, this enlargement results essentially from our pre-sample research.

Table 3 – Codification Tags – Categories and Sub-Categories

1	**Financial Statements & Tables**	**6**	**Long Term Value Creators**
A	Balance Sheet	A	Excellence / Innovation / Company Specific
B	Income Statement	B	Other
C	Cash-Flow	**7**	**Background Information**
D	Segmented	A	Objectives / Strategy
E	Share Performance / Holders & Stock Data	B	Vision / Mission
F	Key Financials	C	General Development Of The Business
G	Estimates	D	Products
H	Valuation	E	Industry / Markets
I	Comparables	F	Processes
J	Other	G	Customers / Clients
2	**Financial Data**	H	Competitors
A	Turnover / Revenues	I	Properties
B	Margins	J	External Regulation / Legal Conditions
C	EBITDA / Operational Cash Flow	L	Other
D	Capital expenditure / Investment	**8**	**Comparable Measures**
E	Debt / Financial Costs	A	Financial and Operating Data
F	Dividends	B	Other Comparisons Across Peers and Competitors
G	D&M	C	Stock Performance / Company Valuation
H	Gearing	D	Other
I	Interest Cover	**9**	**Segment information**
J	Properties (Sale)	A	Industry / Market /Geography / Products
L	Profit and Profitability Measures	B	Other
M	Provision	**10**	**Corporate governance**
N	Tax	A	Board Structure and Assignments
O	Currency	B	Division of Power Between Board and Management
P	Working Capital / Opex	C	Governance in General
Q	Other	D	Shareholders / Stakes
3	**Management´s Operational Data**	E	Transactions and Relationships Among Related Parties
A	Costs	F	Other
B	Growth Drivers / Value Drivers	**11**	**Intellectual capital / Intangible Assets**
C	Products / Productivity /Capacity /Volumes / Stores	A	Employees
D	Sales / Market Share / Orders /Demand/ Prices	B	Core Competences
E	Other	C	Core Knowledge and Technology
4	**Management's Analysis**	D	Organizational, Structural & Relational Capital
A	Financial Data	E	Patents / Brands
B	Management Operating Data	F	Other
C	Macroeconomic Trends	**12**	**Analysts Analysis**
D	Market Changes / Momentum	A	Financial Information
E	Forward-Looking Information	B	Management Operating Information
F	Other External Trends Affecting the Company	C	Macroeconomic Trends
G	Management's Plans/ Targets	D	Market Industry Changes / Momentum
H	Other	E	Forward-Looking Information
5	**Risk and Opportunities**	F	Other External Trends Affecting the Company

A	Risks	G	Management's Plans / Actions
B	Opportunities	H	Stock Estimation, Performance / Firm Overall Analysis
C	Swot	I	Past estimation accuracy / Relative reliability
D	Other	J	Investments Strategy / Evaluation Assumptions

Provided with this research apparatus we were able to code the full text of analysts report by defining sentences as recording units. Within any code unit we drawn inferences from the text and defined the information units present i.e. category and sub-category. In most cases the exact words or vocabulary displayed leaded to a direct connection to our categories and sub-categories. Others times this connection was not to so obviously, in these cases we trusted the researcher's competencies and in his familiarity with the field (Kelle and Laurie, 1995), to make those links and to obtain reliable results, admitting nevertheless that as in all codification systems, total objectiveness is impossible.

In order to minimize subjectivity and to ensure coherence and reliability in our coding structure we have set a system of codification rules.

Table 4 – Codification Rules

Nº	*Codification rules*
1	To code means connecting the text to a category and to a subcategory
2	The recording units are sentences and individual structures.
3	A sentence is a phrase that ends in (.) or (;) (!), (?).
4	An individual structure is any Financial Statement, table, graphic or similar object.
5	A sentence can be coded more than one time, depending of the information provided.
6	An individual structure can be coded (Category 1) more than one time, depending on the information provided.
7	A sentence or individual structure cannot have two identical codifications.
8	An individual structure is coded as Key financial (1F), only if provides two or more financial indicators.
9	An individual structure is coded as Comparables (1I), only if provides two or more comparables measures / indicators.
10	In identical sentences the number of SI 's (Same information) units coded is identical to the number of units of the primarily information
11	When financial information is identified it is coded as 2X ("X" meaning the subcategory) if it provides quantified information and as 12A if not.
12	When Management´s operating data is identified it is coded as 3X ("X" meaning the sub-category) if it provides quantified information and as 12B if not.

13	When an Analyst or Management Forward Looking Information is identified, it is code as 12E or 4E respectively. Subsequently another code is added according to the kind of prediction being made (4A) if it is financial, (4B) if it is Operational data and so on.
14	A trigger is considered Forward Looking Information.
15	When Management's plans are identified they are coded as 4G if it is possible to establish a direct connection to Management's words and as 12G if not.
16	When an acquisition/sale is identified it is coded as 3C if the references are to the capacity added /lost or 2D if the references are to the process of buying/sale. In this last case if no price is indicated it is coded as 12A.
17	When a comparable measure/opinion is identified, the all sentence is code as 8X ("X" meaning the subcategory).
18	When a paste estimation accuracy evaluation is identified, the all sentence is code as 12I.
19	Tittles are not code
20	Risks and Opportunities are only coded when the actual word "Risk" "Opportunity" or similar ones are used, (examples: danger; jeopardy; threat; hazard; menace etc) or (chance; break; possibility etc)

We offer an example taken from our pre-sample codification to help understand the coding scheme procedure:

The Recording Unit (sentence):
"We expect group revenues to increase by 1.6% YoY to €1.6bn, supported by the evolution of Vivo and the wireline segment",

incorporates 3 information units:

Information unit #1: **12E** ("expect" is seen as Forward-looking information provided by the analyst)

Information unit #2: **2A** ("revenues to increase by 1.6% YoY to €1.6bn" is seen as a quantified information about revenues)

Information unit #3: **9A** ("Vivo" and "Wireline" are seen as segmented information);

Once all the reports were coded, our last step was to gather all information in an excel sheet for statistically and analytic treatment of the results (*Appendixes B and C*).

In brief we were able to portray a typical Portuguese sell side analyst report using an inductive approach that departed from a text category selection and moved to conclusions sustained by quantity measurements. These results were confronted with an ideal report framework based on the *Jenkins Report* insights.

As previous stated we clearly acknowledge that there is no proportional relation between the frequency with which the categories appear in text and the importance of the information disclosed (Weber 1990), as with all content analysis, it is not realistic to compare quality with quantity, when we have in mind the information provided. However we also recognize that by performing a content analysis that codes units of data into categories, the higher relative counts should return a wider preoccupation with that category (Weber 1990). This contradictory fact though difficulty to deal with has its importance diminished by the fact that our study aims to offer a systematic description approach rather than a causality one.

A last but not less important issue is related to the treatment given to non text content in the reports. Reports have a copious amount of tables, formulas and graphics and because our methodology is focused on text content, it could have been difficult to include them in our study. To outcome this problem we have chosen to create also a category (Category 1) to code all these table structures, this information was treated separately from the text content one.

Of obvious importance in any academic work is reliability in the research results we believe it to be mandatory and a prior condition to the success of any research. In reference to our methodology Milne and Adler (1999) notes that “to permit replicable and valid inferences to be drawn from data derived from content analysis, content analysts need to demonstrate the reliability of their instruments and/or the reliability of the data collected using those instruments.”

Consistency in content analysis methodology involves therefore two separate issues: reliability in the data produced by the analysis and in the coding instruments used. We aspire to achieve the former by recognizing the researcher/coder as a competent language user (Gunter, 2000) with expertise in

the research object, the later by ensuring well-defined categories and through the application of the formal coding procedure described above.

We have used also Weber's steps mobilization as a framework to ensure and test our methodology coherence and validity:

Table 5 - Weber's steps

	Weber's steps	***Procedure taken***
1	*Define the recording units (for example word, word sense, sentence, or theme)*	*The text is coded by sentences.* *Each sentence allows several information units according to the information provided.* *The tables and graphics are coded by individual structure.* *Each table/graphic structure allows several code units according to the information provided.*
2	*Define the categories (for example through literature review)*	*The categories are defined through a close reading of the conclusions of The Committee on Financial Reporting, aka Jenkins Report, (AICPA 1994) and the FASB - Improving Business Reporting: Insights into Enhancing Voluntary Disclosures (2001).The category codification work by Christina Nielsen (2008) was also a point of departure. The pre-sample coding served also to improve the categories system.*
3	*Test coding on sample of text (apply abbreviated tags to represent the categories)*	*Codification tags (Table 3) were created in a pre-sample test coding work made in 10 reports.*
4	*Assess accuracy or reliability (for example whether the coding is correct)*	*All the reports were coded in a three step procedure. With the first reading we coded the category and in a second reading the sub-category. This procedure assesses reliability since the first coding was not known .Finally we revised the former codification in search of errors and of hidden information units.*
5	*Revise coding rules (for example develop disambiguation rules)*	*Coding rules were developed during the pre-sample coding. If the text content or the codification rules didn't allow an accurate coding tag the choice was to tag it as No Information.*
6	*Return to step 3 (until accuracy or*	*Coding thrice all the reports provokes a conceptual*

	reliability is satisfactory)	*saturation in the text analysis that allows a satisfactory reliability in all the process.*
7	*Code all the text*	*All the reports were coded after a close reading and according to the categories system and the codification rules.*
8	*Assess achieved reliability or accuracy*	*The achieved reliability is perceived to be Satisfactory*

3.2. Valuation Practices Used

Regarding our second purpose - the identification of the methods that analysts employ to evaluate the firms - our research also used a content analysis approach, this time in a more straightforward way.

Typically these reports incorporate earnings forecasts that are linked to a calculative apparatus that result in two key summary measures of advice: stock recommendations - buy, sell or hold - and Price Targets. Since almost all reports usually present a large variety of valuation information, it is important to make clear that the model we tried to identify was the one that legitimized the value of the Price Target.

Our procedure was simple, first we searched if the evaluation method was clearly expressed in at least one of the reports of the set (we acknowledge a one year time period for the disclose of this information); we point out that the use of a particular valuation model was only considered if the analyst expressed it in any table or narrative. Again and in the spirit of our work we assume that only the expressed information is useful to reports users.

Our research used the formulas described in Demirakos (2004) work as a starting point in determining the different models of valuation used. In a following moment we tried to determine if the information provided allowed the calculative procedure to be reproduced according to the formulas described in Table 6.

Table 6 - Valuation Models

Major Valuation Models	*Models*	*Definition*	*Formulas*
Single-Period Comparative	Earnings Multiples (E)	Price to Earnings (PE); Enterprise Value to Earnings Before Interest, Taxes, Depreciation and Amortization (EV/EBITDA); Enterprise Value to Earnings Before Interest and Taxes (EV/EBIT); PEG ratio (PE multiple scaled by earnings' growth rate), and Discounted Future Earnings Multiple (DFE multiple).	PE = Price per Share / Annual Earnings per Share
			EV / EBITDA **Enterprise value** = common equity at market value+ debt at market value+ minority interest at market value, if any– associate company at market value, if any+ preferred equity at market value– cash and cash-equivalents. **EBITDA = Revenue – Expenses (excluding tax, interest, depreciation and amortization)**
			EV / EBIT **EBITDA = Revenue – Expenses (excluding tax, interest)**
			PEG = PE / Annual EPS Growth
			$V_t = [(EBITDA_{t+1})/(1+WACC)^t] \times (EV/EBITDA)$ When analysts value a firm based on a PE multiple, they control for the effects on earnings of nonrecurring events, transitory components, and accounting conservatism. Where a firm has negative, very low, or very high earnings that are unlikely to continue, financial analysts try to normalize earnings.
	Sales Multiples (S)	Price to Sales (P/S) and Enterprise Value to Sales (EV/S) multiples.	P/S = Share Price / Revenues per Share
			EV/S = Enterprise Value / Revenues per Share
	Price-to-Book (BV)	Stock Price to Book Value per Share.	BV = Share Price / Book Value per Share
	Price-to-Assets (Assets)	Stock Price to Asset Value multiple.	Assets = Share Price / Assets
	Price to Cash-Flow (CF)	Price to Cash Flow multiple.	CF = Share Price / Cash-Flow per Share
	Dividend Yield (DY)	The Dividend Yield method.	DY = Annual Dividend per Share / Share Price
	Enterprise Value to R&D (R&D)	Enterprise Value divided by R&D expenditure.	R&D = EV / R&D expenditure
	Rating to Economic Profit (REP)	Ratio of the Market-to-Book Value of the enterprise to the return on invested capital scaled by the weighted average cost of capital.	$REP = (EV_t/IC_t)/\{ROIC_{t+1}/ WACC)$ where EV_t is the market value of the firm's equity plus the book value of the firm's debt at date t, IC_t, is the book value of the capital invested in the firm at t, $ROIC_{t+1}$, is the expected return on invested capital in period t + 1, and WACC is the firm's weighted average cost of capital.
Hybrid	Accounting Rates of Return	The return on equity (ROE) and return on invested capital (ROIC) ratios when	ROE = Net Income After Tax / Shareholder Equity

	(ARR)	analysts use these as valuation models and not simply as indicators of economic profitability.	ROIC = Net Income After Tax / Invested Capital
	Cash Recovery Rates (CRR)	The standard cash recovery rate (CRR) and the cash flow return on investment (CFROI™).	CRR = Cash From Operations / Gross Assets CFROI = Cash Flow / Market Value Of Capital Employed
	Economic Value Added (EVA™)	The return spread times the book value of a firm's assets.	EVA = NOPAT - C x K C is the Weighted Average Cost of Capital K is capital employed NOPAT Net Operating Profit After Taxes
	Enterprise Value	Enterprise value is calculated as market cap plus debt, minority interest and preferred shares, minus total cash and cash equivalents.	Enterprise value = common equity at market value+ debt at market value+ minority interest at market value– associate company at market value+ preferred equity at market value– cash and cash-equivalents.
Multi-period	Discounted Cash-Flow (DCF)	The present value of a firm's cash flows over multiple future periods.	$DCF = CF_1/(1+r)^1+CF_2/(1+r)^2+\ldots+ CF_n/(1+r)^n$ CF Cash-Flow R discount rate (WACC)
	Residual Income Valuation (RIV)	Current book value of equity plus the present value of residual earnings over multiple future periods.	$RIV = \text{Book Value Of Equity} + RI/(1+r)^t$

Font: What Valuation Models Do Analysts Use? Ethimios G Demirakos, Norman C. Strong, and Martin Walker

4. Sample

4.1. Sample Selection

The use of samples has a unique virtue since it allows the investigator to save on research efforts by limiting observations to a manageable subset of units that statistically or conceptually reflects the population or universe of interest (Krippendorff K.).

Following this idea and as previously stated we used a sample of analysts' reports in our research that were obtained directly from the publishers. Our original sample consisted of 444 reports issued by the four most preeminent Investment

Firms (hereafter IFs) operating in Portugal. According to Banco de Portugal latest published study regarding financial analysts' work, these four IFs were responsible for 78% of all the reports issued in Portugal in the period of a year.

Since all text codification method relies on the researcher's technical familiarity with the subject being analyzed, we have excluded Bank firms. This choice was made admitting the inherent difficult to distinguish the operational and financial areas of business in these companies.

Also and because in the period of a year the company being followed can have their rate suspended or even permanently stopped, we considered only companies that had at least one report issued in the first and in the final three months of our period.

Since our study applies manual content analysis a labor-intensive data collection process, we had inevitably to restrict the sample size employed in our research. We can synthesize the sample building process in the following steps:

(i) Initial set of 444 reports from companies listed in the PSI20 Portuguese Stock Market and issued by the four most important Portuguese Investment Firms. If we consider the time frame of our study these were all the reports published.
(ii) Removal of Bank firms, sample narrowed to 380 reports.
(iii) Sample narrowed to companies that had at least on report issued in both the three initial and final months of our time frame. 335 reports rest.
(iv) The reports of four companies were randomly chosen from three Investment firm and three from another. Final sample includes 73 reports that represent also 15 units of research[7].

[7] For the purpose of building our sample we also acknowledge that the dissemination of analysts' reports occurs in three different time circumstances: urgent, timely, and routine (Michaely and Womack, 2003).
Urgent communications are result normally from an unexpected earnings announcement or other abrupt corporate statement and are made while the market is trading. Timely communications is usually disseminated through a morning research conference call, before the market opens.

Our research used a pre-sample. In harmony with the understanding of Krippendorff (1980) a pre-sample is fitted to improve the set of categories of text that will be used in the main sample research. Our pre-sample came from the same population as the main sample. We used two to three reports from each of the four IFs being studied. Our main goal was to develop and improve our thematic structure of codification by gaining a wider set of categories that may be used in analysts' reports

4.2. Sample Description

The reports selected for our study were issued by the four most important Portuguese Investments Firms and they cover a period between January 2009 to December 2010, exception made to the reports from one IF that are from June 2009 to June 2010.

There is a total of 701 pages in all the 73 reports, all have at least 4 pages with an average number of 9,6. We tested our sample for a relation between the amount of information provided and the companies' market capitalizations but no statistical evidence of correlation between these variables was found.

These reports were prepared by 14 different analysts, sometimes working as a team of two or more members. Normally the same analyst follows more than one

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Routine information is usually collected in written reports and is first disseminated to Investment Firms clients. These reports can take several days to be made given the length of time necessary to prepare an extensive report, hence they are less urgent and have a wide range of information themes to offer (Michaely and Womack, 2003).

Because analysts' dissemination of information to their clients happens in these different time circumstances and clearly with diverse objectives, one question seems natural: should every report bear the information that our research found as ideal, and is it reasonable to expect analysts to repeat or update the information in all the reports issued?

In our opinion since it is unanimously established that the period of a year is the timeframe recognized for companies to measure their performance and calculate their results, the information provided should embrace this alignment.

The proposal is that analysts should be able to provide all information concerning the firm that they are following in the period of a year. Following this idea we also combined our sample in 15 separate units of research; each unit represents all the reports issued by one Investment Firms, for a certain company in the period of one year. By doing so we created 15 complementary pieces of research, hereafter identified as *one year sets*.

company in similar sectors. We identified 12 different sectors and 13 different PSI20 listed companies covered by these reports.

Table 7 synthesizes this information and displays the recommendations ratings distribution and the implicit price potential change also known as delta[8].

Table 7 - Recommendations Description

				Recommendation						
				Buy / Accumulate		Hold / Neutral		Sell / Reduce		
Investment Firm	Period	Nº. of Reports	Nº. of Companies	Nº	%	Nº	%	Nº	%	Change Potential[7]
A	Jan-09 to Dez-09	12	4	11	92%	1	8%			23%
B	Jan-09 to Dez-09	25	4	25	100%					52%
C	Jan-09 to Dez-09	17	4	8	47%	6	35%	3	18%	7%
D	June-09 to June-10	19	3	16	84%	2	10%	1	5%	38%
Overall		73	15	60	82,2%	9	12,3%	4	5,5%	33%

Although not the central focus of this research the examination of our sample offers significant information to portray Portuguese Investment Firms recommendations.

Our sample provides evidences of the long reported (Womack 1996; Phillips and Zuckerman 2001; Elton et al 1986) biased behavior in the kind of the recommendation made: a large number of Buy recommendations against a rare amount of Sell. As stated before and according to previous research the proportion up to the early 90s was 10 Buys to 1 Sells. Womack in is 1996 work pointed to 7 times more Buys than Sells. This tendency is also manifest in Cavezzali (2007) paper, in a dataset composed of 3111 reports, 84% forecasts were for an upward price change, while 16% were for a downward one. Our results (82,2% buys) are

[8] Delta = (Target price – Current price) / Current price

close to the few data available for the Portuguese stock market; with reference to the period between 1999 and 2002 and considering only the recommendations produced by Portuguese IFs there are evidences of 84% of Buy suggestions in 1999 with a later decrease in 2002 to values around 60% (Coelho 2002).

A small contribution to the study of the Price Target accuracy in the Portuguese Stock Market context can also be added by the study of our sample. In out of 73 reports we identified 31 (around 42%) in which the Price Target was achieved in the time horizon of the recommendation, Bradshaw and Brown (2005) using a sample of 95.852 Price Targets for US firms, with a 12-month horizon period pointed to 45%, according to Asquith et al (2003) the Price Targets are achieved (again in the US market and in a one year period) in 54% of the times. Asquith also reported an interesting result, when the Price Target was not achieved the average maximum (minimum) price was 84% of the Price Target.

Since we accept as quite probable that the Price Target is achieved when the prediction value is close to the current price (a small delta), it is important to mention that in almost half (14) of the reports when the prediction was successful the delta was minor then 10%. The remaining results are us follow:

Table 8 - Price Target Accuracy

Price Target Accuracy		Nº Reports	%
Achieve	Delta ≤ 10%	14	19%
	10% < Delta < 50%	14	19%
	Delta ≥ 50%	3	4%
Not Achieve	Delta ≤ 10%	0	0%
	10% < Delta < 50%	26	36%
	Delta ≥ 50%	16	22%

Our research also shows that there is an average discrepancy of 31% (Coelho also for the Portuguese Stock Market points to an average of 22%) between the Price Target and the actually price of the stock in the day the recommendation was issue. In the last day of the time horizon the average discrepancy decreases to 23%, this last result diverges largely from Coelho who found evidence of a 57%

and 114% (in a six month and twelve month period respectively) lag between the estimation price and the actually stock price. These values change to 45% and 87% respectively when weighted by the PSI20 performance. These results may confirm recently research who suggested “that forecasting accuracy is very limited: prediction errors are consistent, auto-correlated, non-mean reverting and large (up to 46%)” (Bonini et al, 2009). This idea is also validate by Brav and Lehavy (2003) their research found that “that, on average, the one-year-ahead target price is 28 percent higher than the current market price.”

The fact that, at the last day of the time horizon, only 21% of the prices of the stocks were higher than the estimation made is also worth of mentioning, nevertheless we cannot corroborate for the Portuguese Stock Market, Coelho (2003) evidences that no abnormal returns can be achieved in a buy and hold recommendation strategy or Barreto (2005) conclusions that positive results can be achieved in the long term with a stock picking strategies based on recommendations. Our contribution is limited and as previous declared the main objective of this work is to determine analysts’ value using a different approach.

5. Empirical Research

5.1. Information Aptitude

As stated our sample has 73 reports containing 1028 table structures and 2444 sentences, they provided 6601 units of information and 146 where no information was found or we were unable to code according to our codification system. We have found 613 units that had repeated information (meaning identical sentences).

Table 9 – Reports Structure

Reports	Structure	Nº	Total Information Units	Average Structure by Report	Average Codification Units by Structure	Average Codification Units by Report	Average Codification Units by Set
73	Sentences	2444	4425	33	1,81	61	295
	Tables	1028	2176	14	2,12	30	145

Also as stated these reports were combined in 15 sets of research (we gathered all the reports issued by each of the Investment Firms for the same company in a one year period). The four Investment Firms issued an average number of approximately 5 reports for each company in this period. This number varied largely (amplitude 2-8) and as mentioned before we found no relation between the market capitalization and the number of reports issued.

Table 10 – Sets Structure

Sets	Average Reports by Set	Amplitude: Reports by Set		Average Sentences by Set	Average Tables by Set
		Min.	Max.		
15	4,96	2	8	163	69

According to our sample research results Portuguese reports tend to share a similar structure: the information concerning the company is revealed both in tables and text, there is always a section for legal and general disclosers and all the times the sector of the company is expressed. It is also always displayed the recommendation made, the Price Target (Bradshaw M. T. 2001, points that only 2 in 3 reports offers this information), the Price Target's time horizon, profit forecasts and the identity of the analyst(s). All but one of the Investment Firms disclosed its risk valuation.

Typically the text is the core structure of these reports and covers a large amount of topics, such as business operations events, industry sceneries, management plans and outlook, a preview of the results or earnings highlights, the discussion of

an extraordinary event which may affect the company, or even analyst overall evaluation of the company business and risk exposure.

This layout affinity possibly results of the small number of analysts working in Portugal and from the shared profile they respond to. According to numbers from 2001 more than 90% of the analysts had a degree in Economics or Management and 75% of these degrees in one of three Portuguese Universities (CMVM - 1º Inquérito sobre a Actividade dos Analistas, 2002).

Regarding the text content research we were able to make 4425 codifications that provided an average number of approximately 163 units of information per set.
These reports also share resemblances regarding the distribution of categories of information (according to the standard deviation values) and we believe this finding to be important one since it tolerates generalization in the results description. The text information units' distribution was as follows:

Table 11 - Text Information Units – Distribution by Category

Text Information Units – Distribution By Category																			
Categories / Sets	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**M**	**SD**	**A**	
Analysts Analysis	59%	50%	50%	67%	39%	33%	30%	48%	54%	47%	54%	42%	60%	58%	47%	49%	10%	30	67
Financial Data	7%	12%	18%	13%	8%	13%	11%	11%	2%	9%	9%	18%	22%	15%	20%	13%	5%	2	22
Segment Information	8%	15%	16%	4%	1%	7%	14%	18%	19%	18%	13%	9%	4%	8%	21%	12%	6%	1	21
Management´s Op. Data	19%	18%	7%	12%	9%	3%	18%	3%	5%	11%	9%	5%	11%	17%	3%	10%	6%	3	19
Background Information	0%	0%	1%	0%	31%	25%	18%	9%	13%	3%	5%	6%	0%	1%	0%	7%	10%	0	25
Management´s Analysis	1%	2%	2%	3%	5%	10%	4%	4%	1%	2%	2%	3%	1%	1%	4%	3%	2%	1	10
Comparable Measures	4%	2%	4%	0%	0%	1%	0%	1%	1%	4%	4%	3%	0%	0%	0%	2%	2%	0	4
Risk and Opportunities	2%	1%	0%	0%	1%	0%	0%	3%	0%	3%	1%	7%	1%	1%	0%	1%	2%	0	7
Long Term Value Creators	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0	1
Corporate Governance	0%	0%	2%	3%	6%	8%	3%	3%	4%	2%	3%	8%	0%	0%	4%	0%	3%	0	8
Intellectual Capital / I. A.	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0	1
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-	-

M – Medium; SD – Standard; Deviation A – Amplitude

As we can see reports' narratives are largely built with opinions and analysis drawn by their own authors, in average almost half (49%) of the information provided fits in this category. The fact that this sample contains the most important Portuguese companies, normally large multi-sector internationalized organizations with facilities or business divisions abroad helps explain why 12% of the information in these reports has a segment nature, Nielsen (2008) found a 11,1% value relating to this kind of information.

It comes also with no surprise that quantified *Financial and Management's Operational Data* is responsible for 13% and 10% respectively of the information offered; even though the increasing importance given to the intangible and intellectual assets, it seems that analysts and companies will always rely on numbers.

Surprisingly this last category, *Intangible Capital/Intellectual Capital*, is completely forgotten by the analysts (in all the 4425 text information units only 8 were coded according to this category); the same absence of information is found for the *Long Term Value Creators* category with only 9 units coded.

The *Risks and Opportunities* category contributes with only 1% of the information, we also detected that one of the Investment Firms always presented a SWOT analysis in at least one report of the company.The four categories with more information units, offered the following subcategory distribution (Table 12, 13 and 14):

Table 12 - Text Information Units Distribution by Category – Analyst Analysis

Text Information Units Distribution by Category – Analyst Analysis		
Analyst Analysis	**% In the Category**	**% In All Text**
Forward-Looking Information	28%	14%
Financial Information	15%	7%
Management Operating Information	13%	6%
Stock Estimation, Performance / Company Overall	12%	6%
Market Industry Changes / Momentum	7%	4%
Investments Strategy / Evaluation Assumptions	6%	3%
Other External Trends Affecting the Company	6%	3%
Management's Plans / Actions	6%	3%
Macroeconomic Trends	4%	2%
Past estimation Accuracy / Relative reliability	4%	2%
	100%	49%

As we can observe and according to our results the analysts' analysis are largely built surrounding considerations about *Forward-Looking Information;* their prospects and judgments regarding the future of the company plays an important role in all the text (14%) and are largely (28%) expressed in their opinions. Not surprisingly non quantified *Financial and Management Operating* Information is also a regular topic employed since it allows an overview of the company's business operations.

An interesting finding is the articulation of technical issues regarding investment strategies (normally advising the use of complex instruments of investment, e.g. futures and options) and the discloser of evaluations assumptions (built to justify Price Targets) which accounts for 6% of the information units in the category and 3% in all text.

Table 13 - Text Information Units Distribution by Category – Financial Data

Text Information Units Distribution by Category – Financial Data		
Financial Data	**% In the Category**	**% In All Text**
EBITDA / Operational Cash Flow	32%	4%
Turnover / Revenues	18%	2%
Debt & Financial Costs	12%	2%
Margins	9%	1%
Profit & Profitability Measures	8%	1%
Capital Expenditure / Investment	4%	1%
Currency	5%	1%
Other	3%	0
Working Capital / Opex	2%	0
Properties (Sale)	2%	0
Dividends	1%	0
D&M	1%	0
Gearing	1%	0
Interest Cover	1%	0
Provision	1%	0
Tax	0	0
	100%	13%

According to our sample results, analysts frequently use EBITDA and Revenues figures when providing quantified *Financial Data*; this seems understandable since these metrics offer important insights into the financial/economic circumstances of the companies, moreover they are excellent tools to compare present results to prior ones and also to judge the performance of the firms against their peers. In

addition both single and multi-period valuation methodologies rely heavily in earnings and sales measures (e.g., Price-to-earnings ratio, EBITDA multiple, Price to sales (P/S) and enterprise value to sales (EV/S) multiples).
The use of more straight and simplistic *Profit & Profitability Measures (e.g. net income)* is less noticeable (8% in the Category and 1% in al Text), the choice relies therefore in figures that portray a stable and comparable view of the business operations performance instead of figures more permeable to extraordinary events that have the ability to influence the results of the companies.

Debt & Financial Cost is an important topic in these reports (represented 2% of all the information units coded in the text and 12% in the category).
Internationalized organizations like the ones in our sample normally make their business in more than one currency and consequently their results are sensitive to exchange rate movements. Analysts seem to be aware of this matter and frequently offer insights into currency movements and their consequences to the companies (5% in the Category).

The *Segmented Information* Category that represents 12% of all the text has only one generic subcategory which hosts several forms of segmentation (Industry, Markets, Geography and Products). Again to make easy the identification of information units concerning this category and since they are intrinsically connected to the company's uniqueness, we have created a list that allowed a more coherent detection (see *Appendix B*).

Table 14

Text Information Units Distribution by Category – Management's Op. Data

Management´s Operational Data	% In the Category	% In All Text
Products / Productivity / Capacity /Volumes / Stores	39%	4%
Growth drivers / Value drivers	31%	3%
Sales / Market Share / Orders /Demand/ Prices	26%	3%
Costs	3%	0
Other	2%	0
	100%	10%

The information units related with *Management's Operational Data* concern three major subcategories which added represent 95% of the total, they relate to Products and Production measures, Sales related data and *Value and Growth drivers.* Remarkable is the quantity of information linked to this last subcategory (31% in the Subcategory and 3% in all the text) these indicators are essentially connected with the exceptional characteristics of the company's business and therefore to allow there correct identification again we detailed a set of subjects that can be associated with them (see *Appendix D*).
Significant is the absence of units of information regarding measurements of *Costs.*

Concerning the tables, we were able to detect at least one of these structures in all reports. In average a report has 14 tables with amplitude that goes from 2 to 27. When we consider the 15 units of research, our results shows that the Investment Firms provide an average of 145 tables spread by the different reports issued in the year. The distribution of the subcategories is as follows:

Table 15 - Table Structures Units – Distribution

Table Structures Units – Distribution																			
Categories / Sets	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**M**	**SD**	**A**	
Balance Sheet	3%	2%	0	4%	4%	4%	3%	3%	7%	4%	4%	4%	7%	4%	6%	4%	2%	0	7%
Income Statement	6%	6%	7%	6%	8%	4%	4%	4%	7%	4%	4%	4%	7%	4%	8%	6%	1%	4%	8%
Cash-Flow	3%	2%	0	4%	4%	4%	4%	3%	7%	4%	4%	4%	8%	9%	2%	4%	2%	2%	9%
Segmented	5%	13%	13%	6%	0	3%	3%	6%	0	9%	4%	4%	6%	17%	18%	7%	6%	0%	17%
Share P./ H.& Stock Data	5%	6%	9%	4%	13%	13%	14%	11%	15%	18%	13%	21%	5%	4%	4%	10%	6%	4%	21%
Key Financials	17%	19%	21%	21%	13%	15%	16%	15%	2%	5%	4%	3%	16%	14%	11%	13%	7%	2%	21%
Estimates	41%	37%	34%	44%	42%	4%	39%	37%	30%	23%	23%	21%	4%	35%	35%	35%	7%	21%	41%
Valuation	15%	10%	7%	12%	17%	17%	16%	14%	8%	7%	7%	6%	6%	5%	11%	10%	4%	5%	17%
Comparables	2%	2%	2%	0	0	1%	0	1%	8%	10%	14%	18%	5%	4%	4%	5%	6%	0	18%
Other	5%	4%	7%	0	0	0	0	5%	17%	15%	23%	14%	2%	4%	0	6%	7%	0	23%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-

Regarding the three most important Financial Statements (*Balance Sheet, Income Statement and Cash Flow*) only 11 (about 15%) reports failed to deliver all of them, and if we consider our 15 research units only one set fail to provide it.

In the 73 reports, there are 93 balances sheets, 121 income statements and 101 cash flows statements, frequently these maps are designed for different business units or industry locations of the company, providing therefore segmented information and explaining why there are more of these statements than reports.

Also we were able to code 203 tables (near one in five) that offer segmented information (7% of the Category), 190 tables with share and shareholders data (10% of the Category), 279 tables with key financials and 224 tables with valuation information (13% and 10% respectively of the category). Only around 5% of these structures provide comparable measures.
An important finding is that almost all (796, around 75%) tables offer some kind of outlook, or estimations data, this account for 35% of all the units of information withdrawn from these structures.

What is therefore the informative of ability these reports offer? Are they able to meet their users' needs?
First of all when focusing in the informativeness of these reports is important to mention that regardless of the technique (e.g. disclosure index, content analysis, disclosure frequency) applied to evaluate their disclosure ability the interpretation of the results could in rigor only be made relatively, in other worlds by ranking and comparing companies with each other. Since there is no starting point to evaluate their informativeness - the *Jenkins Reports* offers broad principles of disclosure rather than fix and quantified measures; our option was to describe Portuguese average reports and confront their disposition with the main ideas and conclusions behind the *Jenkins Report*. Even though our reading of the results lack the hardiness of a definite one, we believe the benefits of our decision clearly outweigh the costs and are for that reason a solid starting point in reaching an understanding of these subjects.

Bearing in mind this idea our research conclusions can be summarized in the following table:

Table 16- Research Conclusions

Financial Reports Should (according to the Jenkins Report)	*Research Conclusion*	
• ***Provide Financial Statements elements***	• ***Regarding the three most important Financial Statements (the Balance Sheet, the Income Statement and the Cash Flow Statement) only 11 (about 15%) reports fail to deliver all of them, and if we consider our 15 research units we can see them always being provide. Need Accomplished.***	√
• ***Provide more information with a forward-looking perspective, including management's plans, opportunities, risks, and measurement of uncertainties.***	• ***Almost all tables (796, around 75%) offer some kind of outlook, or estimation information, this account for 35% of all the codification made regarding the tables structures. Concerning the text content almost 15% of all information provides a forward looking perspective, though only 5% of it represents truly management plans, the other 95% comes from analyst's forecasts.. Need Accomplished.***	√
• ***Focus more on the factors that create longer term value, including non-financial measures indicating how key business processes are performing.***	• ***Total absence of Long Term Value Creators (see note 3) information, with only 9 units coded. Need Not Accomplished.***	X
• ***Provide Business Data (for example, high-level operating data and performance measurements that management uses to manage the business)***	• ***All the sets (one year sets) offer at least one Profit and Loss statement. Regarding financial data (Category 2), 4% is a Cash-Flow measure and around 1% concerns Margins. These reports offer also plenty (10%) of specific business data (Category 3), concerning Products and Productions measures (4%), Sales measures (3%) and***	√

	other KPIs (3%). *Need Accomplished.*	
• *Management's analysis of business data (for example, reasons for changes in the operating and performance-related data, and the identity and past effect of key trends)* • *Provide management's perspective. Many users want to see a company through the eyes of its management to help them understand management's perspective and predict where management will lead the company.*	• *All 15 sets are able to provide information regarding Management´s view of the business; in average this Category (4) provides 3% of all text codification. This value was achieved even though the category was only coded when it was possible to establish a direct connection between the text and Management's words. Moreover the analyst itself provides a great amount of this kind of information, subcategory 12G which is directly linked to Managements Plans and actions has an average value of 3% of all the text coded.* *Need Accomplished*	√
• *Report separately on each business segment of a company's business having diverse opportunities and risks. Segment information provides additional insight into the opportunities and risks of investments and sharpens predictions.*	• *Frequently the Financial Statements are specially designed for different business units or industry locations of the company, providing therefore segmented information. Around 7% of all table structures codification can be seen as adding segmented information. Regarding the text content there is also a great amount of segmented information, Category 9 (Segment Information) has an average value of 12%. There is no doubt these reports offer plenty of information regarding the diverse industries, products and geographical localizations of the companies. Need Accomplished.*	√

• *Background about the company (for example, broad objectives and strategies, scope and description of business, products, costumers etc.)*	• *Even though two of the Investment Firms and therefore 8 of the sets have plenty of information about the background of the company (Category 7), the other two IFs failed to provide any kind of this information. We acknowledge that Financial Statements can "also help users understand the nature of a company's business by indicating the types of its assets, the need for working capital, the types of its revenues, the general nature of its expenses, the sources and uses of its cash flows, and other aspects of its business. Further analysis of financial statements over time can help users understand the relationship between cost, volume, and profit." (From the Jenkins Report). Nevertheless the complete absence of information regarding the Strategy, Mission and Vision of the companies allow us to consider that this need should be improved.*	√ X
• *Information about management and shareholders (for example, directors, management, compensation, major shareholders, and transactions and relationships among related parties)*	• *There is a solid (10% on average per set) amount of information in the tables structures regarding the Stock Performance/Data and also Data from Shareholders, moreover this type of information is divided in a balanced way throught out all the sets. In the text Category 10 (Corporate Governance) presents contradictory values. Though the majority of the sets (11 sets) offer this type of information in a substantial quantity (the set average value is around 3%) all the information is related to transactions and relationships among related parties (10E) and shareholders/stakes information in general (10D) .Consequently there is a total lack of details about Board Structure & Assignments (10A) and Governance in General (10C).*	√ X
• *Indicate the relative reliability of information in*	• *The relative reliability of the information provided can be accessed by studying if it is*	√

business reporting. Users need to be able to distinguish between information that is highly reliable and that which is less reliable.	***clear the difference between qualitative and quantity data and between facts and estimates. In all the reports this difference is clear: almost one quarter of the information provided in the text is quantified (Category 2 accounts for an average value of 13% and Category 3 for 10%) disclosing therefore facts; it is also clear when the information provided has a forecast attribute (15% of all the text information).*** ***One important information feature presented in all the 11 sets concerns past estimation accuracy, in other words the analyst is capable of a self-evaluation by confronting his forecasts with the actual value reached (this sub-category 12I has an average value of 2%). Need Accomplished.***	
• ***Focus on measurement to help users understand a company's performance relative to that of competitors and other companies. While descriptions of business events are important, numbers are important too. Management should disclose the measurements it uses in managing the business that quantify the effects of key activities and events.***	• ***There is no hesitation in assert the ability of these reports in delivering quantified information (one quarter of all the text content coded is quantified). Nevertheless the percentage of comparable measure that allows users to understand a company´s performance relative to that of competitors is not high, (category 8 represents only 2% of the information provided in the text content). This need is however achieved in the tables structures, whit an average value of 5% of the information provided being understood as offering comparables measures. Moreover we also acknowledge that "financial statements are comparable among companies since they help users understand performance relative to that of competitors and other companies."*** ***Need Accomplished.***	√
• ***Information about intangible assets that have not been recognized in the financial statements.***	• ***Total absence of Intellectual Capital / Intangible Assets information, in all text codification units (4425) only 8 were coded according to this category.***	**X**

According to the average values of our 15 units of research, Portuguese analysts' reports text content provides a great amount of financial (20%) and high level operational business data (17%), usually delivered as reflections by the analyst itself, only a few (3%) is presented using Management words.

There is an acceptance of the importance of measurement in these reports, normally the information is quantified (63% of the financial information and 61% of the operational is), *Revenues* and *EBITDA* data account for almost half of the data provided by the former, growth drivers, products and productions measures and sales data are responsible for almost 96% of the later. *Comparable Measures* that allows users to understand a company performance relative to competitor appear frequently in the table structures (5%) and more lightly in the text content (2%).

Portuguese reports also respond positively when tested against the ability to "report separately on each business segment of a company's business", around 12% of the text and 7% of the tables content can be seen as presenting sections (different industries, locations or products) of the company. Our research provides a similar conclusion regarding forward looking information with almost 15% of all information in the text having this characteristic, though only 5% of it represents truly management projections, the other 95% comes from analysts' forecasts. This finding points to an area of potential improvement – though able to provide a great amount of business operating data these reports should present more management analysis of it. The same conclusion can be taken regarding information about *Corporate Governance* and also about the *Strategy, Mission and Vision* of the companies, categories where the lack of information is obvious.

On the negative side Portuguese Investment Firms reports fail tremendously to provide any relevant details regarding *Intangible Assets* and facts that can relate to *Long Term Value Creators*.

5.2. Valuation Models

In our investigation into the valuation methods used by financial analysts to justify the Price Targets again we admitted that this information should be presented in the period of the civil year; we used therefore our 15 *one year sets* as units of research.

As with the information provided by the text, Portuguese reports share great similarities regarding the methods used to access the Price Targets. The straightest conclusion from our investigation to these methods is that they all rely on fundamental analysis, corroborating Arnold et al (1984) previous results.

A remarkable finding is that typically analysts construct precise and sophisticated valuation models to evaluate the companies they follow. These specific models are built according to the business sector and to the company's own characteristics.

This concern with companies' intrinsic attributes compels analysts to create special features in the calculative apparatus but nonetheless they persistently (81% of the times) rely in some explicit multi-period DCF model. This finding seems to justify why "Results" and "Growth Strategies" are considered by Portuguese analysts as largely important, when asked for the most valued information used to establish a firm recommendation[9]. It also agrees with previous literature, namely Penman (2001), Copeland et al. (2000) and Palepu et al. (2000) who have a preference for explicit multi-period valuation models based on either discounted cash flows or discounted residual value. Impressive is the fact that none of the analyst used a Single-Period Multiple valuation to approach Price Targets.

Nevertheless the complexity of the models used, analysts always provide in a straightforward way the main evaluation method used to compute the Target Price. This is important since analysts frequently make available several valuation ratios

[9] "Results" and "Growth Strategies" ranked first has the most important information regarding a company recommendation, in a recent inquiry to Portuguese Financial Analysts (1º Inquérito sobre a Actividade dos Analistas Financeiros em Portugal, CMVM, 2003)

(usually single period multiples) and cross sector comparables (market multiples) in trying to access a firms' value[10]. However, in almost all reports, the Target Price is identified with one main model and furthermore explained in a calculative table; this table describes the core concepts and calculative structure in which the valuation relies. This finding contrasts with Cavezzali (2007) research results who in a sample of 4603 reports found that in approximately 70% of the times it was not possible to determine the valuation method used; and also contradicts Barker (1999) who admitted that analysts have a "preference for 'unsophisticated' valuation" the reason being "the practical difficulty of using currently-available information to forecast future cash flows."

Our results are close to Demirakos et al (2004) conclusion who found, "In contrast to prior studies" the "considerable use of explicit multi-period DCF models." This could be an interesting finding since it could denote a radical shift in the nature of the figures analysts attach importance in evaluating firms; we bring to memory the early work by Govindarajav (1980) who in a sample of 976 reports found that in 87% of the times analyst attributed more relevance to earnings than cash-flows which led to the conclusion that "it is obvious that analysts use earnings information on companies significantly more often than they use the cash-flow information", however this change is not totally clear since Asquith et al. (2005) sample from 1999 provided evidences of the same nature than Govindarajav.

Another important finding is the constant use of a SOP (Sum Of the Parts) approach to evaluate the companies, and this is undoubtedly because analysts often estimate Future Cash-Flows by disaggregating the company into geographic regions or operating unit (Previts, 1994), our sample results are clearly consistent with this conclusion.

Considering what has been described we can summarize the Target Price valuation procedure in the following steps:

[10] These results are according to previews research for the Portuguese Market, Coelho (2003) documented that all the IFs use the DCF method in the price targets calculation and 33% of them also use a Single Period Multiple.

1) Selection of a SOP (Sum of the Parts) approach to calculate de Enterprise Value. The companies in the sample frequently have different units of business generating distinct Cash-Flows; the option is for a separate appraisal of the parts and subsequent sum.

2) Each of these parts is evaluated according to the present value of the Future Cash-Flows to meet the Enterprise Value. The Future Cash-Flows estimations come from analysts' forecasts or from the companies' guidance. The present value of the FCF comes from discounting them at a finite rate, normally the weighted average cost of capital (WACC).

3) The Equity Value is obtained by adding, to the sum of the Enterprises Value, the Financial Investments of the company and by withdrawing the Net Debt and the Minority Interests.

4) Finally the Equity Value is divided by the number of shares.

Table 17 displays a more detailed description of the evaluation models in the sampled reports.

Table 17 - Evaluation Models Employed in Analysts' Reports that Justify the Price Targets

Evaluation Models Employed in Analysts' Reports that Justify the Price Targets					
IF	***Set***	***Nº of reports***	***Sector***	***Valuation Model***	***Description***
4	1	3	Renewable	SOP (EV/MW - DCF)	SOP valuation model specially designed and usually used for the valuation of renewable companies. The operating assets and the pipeline are valued according to their Enterprise Value and segmented by business areas. The assets are valuated using an EV/MW multiple with a terminal value; the pipeline is valued using DCFs and assuming capacity forecasts. It is disclosed some assumptions for the valuation of the operating assets. Equity Value is achieved by withdrawing Net Debt. Finally the Equity Value is divided by the number of shares. Absence of WACC and Terminal Growth Rate (g) assumptions.
	2	2	Food Retail	SOP (EV – DCF)	Option for a specially designed valuation model. SOP evaluation where the Enterprise Value of the different business units is added. Each of these units is valued using DCFs that result from capacity, sales and currency forecasts. Equity Value is achieved by withdrawing Net Debt and adding Minorities Average Net Debt. The WACC value is mentioned but not the assumptions. Terminal Growth Rate (g) disclosed.
	3	5	Telecom.	SOP (EV – DCF)	SOP valuation model. Parts divided by localization and nature of the business. Each of these units is valued according to the present value of FCFs. Two small business parts are valued by Multiples and Market Value. Equity Value is achieved by withdrawing final year estimation debt. Discount Rate and Terminal Growth Rate (g) not offered.
		2	Forestry	EV – DFCF & SOP (EV-DCF)	Equity value provided by Multi-Stage Discounted Cash Flows method. All assumptions are provided (a)Three years Cash-Flow projections; (b)Terminal Growth Rate; (c) Terminal Value; (d) WACC assumptions (cost of debt; % of debt; beta; market premium); (e) Net Debt and other liabilities. Free Cash Flows used in the Evaluation Table differ from the ones in the Cash Flow Statement Forecasts table. Another report provides the same method with the Equity Value resulting from a SOP where the parts are the different geographic units of the company. In this report only the final value of the WACC and the Terminal Growth rate is provided.
2	5	5	Industrial Transp. & Motorways	SOP (EV - DCF)	SOP evaluation where the Enterprise Value of the different concessions is added. Each of these units is valued using DCFs that result from traffic, operating margins and cost forecasts and also from the company guidance.Equity value is achieved by withdrawing final year estimation debt and by adding company investments stakes at Market Value. Terminal Growth Rate (g) not offered. All WACC assumptions are disclosed for all the different concessions CFs.
	6	6	Utilities	SOP (EV – DCF – MV – EBITDA – BV)	The Enterprise Value results from a SOP approach. Parts are Business Units and Financial Investments. The main units are valued with a DCFs approach and the others are valued with a forecast EBITDA multiple and also using Market Value. One of the Business Units is a stake in a company that is also followed by the IF, the valuation results in this case from multiplying the stake by the company fair value previous determined (Price Target). All WACC assumptions are disclosed for all the different Business Units FCFs. The Financial Investments are valued either according to their Market Prices or to their Book Value.
	7	6	Utilities	SOP (EV - DCF)	The Enterprise Value results from a SOP approach. The parts are the main geographic business areas where the company operates and are valued through a DCFs method. The Cash-Flows forecasts are mainly associated to capacity and price estimations. Equity value is achieved by withdrawing final year estimation debt and by adding company investments stakes. Only the WACC assumptions are disclosed.
	8	8	Construction & Materials	SOP (EV – DCF)	Well described SOP evaluation approach; the Enterprise Value is achieved by adding (SOP) the different business areas DCFs. Cash-Flows are estimated based on projections for growth in the economies where the company is present and taking into account the favorable current order book; it is also taken in account company´s guidance both concerning sales and capex estimates for all areas. The Equity Value is achieved by adding the company Stakes (valued at Fair Value) and withdrawing the Adjusted Net Debt. Finally the Equity Value is divided by the number of shares (diluted from own shares). All WACC

					assumptions are disclosed. All the different areas of business forecasts (Revenues to Free Cash-Flows) are disclosed.
3	9	4	Building Materials	SOP (EV – DCF)	SOP evaluation approach disclosed in all reports. The Enterprise Value is achieved by adding (SOP) the different markets DCFs, two small market units are valued at the acquisition price. The Equity Value is achieved by adding the company Financial Investments and withdrawing the Net Debt and the Minority Interests. Finally the Equity Value is divided by the number of shares. The WACC assumptions and the Terminal Growth Rate (g) are only disclosed for one business unit. Disclosure of a Sensitivity Analysis that relates Share Price to different combinations of WACC and Growing Perpetuity rates.
	10	6	Retail	SOP (EV – DCF)	SOP evaluation approach disclosed in all reports. The Enterprise Value is achieved by adding (SOP) DCFs from different business areas/geographic units and other Non Core Assets. The Equity Value is achieved by withdrawing the Net Debt adjusted for the Company minorities. Finally the Equity Value is divided by the number of shares. The WACC assumptions for the different business areas / geographic units are disclosed and also the Terminal Growth Rate (g). Disclosure of a Sensitivity Analysis that relates Share Price to different combinations of WACC and Growing Perpetuity rates.
	11	4	Pulp & Paper	Historic Multiples Replacement Cost	Two valuation models applied but none of them justifies the Price Target. 1) Fair Value evaluation according to premium discount percentage to average Historic Multiples (P/BV; EV/Tonne; EV/IC) 2) Fair Value according to Replacement Costs, with assumptions relating USDmn/Tonnes capacity
	12	3	Construction / Infrastructures	SOP (EV – DCF – EV/EBITDA Multiple – MV – Acquisition Price - GAV – Fair Value)	SOP evaluation approach disclosed in all the reports. The evaluation of each of the different Business Units is achieved by a specific method. The most common is by applying a multiple to the end of year EV/EBITDA ratio, in other cases the choice is for a Market Value or an Acquisition Price approach. If the part is a stake in a company also followed by the IF the EV is achieved by multiplying the stake by the Price Target previous determined. The Equity Value is achieved by withdrawing the Net Debt the Company minorities and the Holding Costs and by adding the Company Other Financial Investments. The Equity Value is then divided by the number of shares. Finally it is made a percentage Discount recognizing the SC & Holding nature of the company (a common practice).
4	13	5	Industrials	SOP (EV – DCF)	Holding detailed SOP evaluation approach disclosed in all the reports. The Enterprise Value for each of the Business Areas results from a DFCF method, the Cash Flows estimations are done for several decades. The FCFs forecasts are provided for a large amount of years though not for all years considered in the model. The Perpetuity Rate of Growth is disclosed. All WACC assumptions for each of the Business Areas are provided. The Equity Value of the Business Areas is met by withdrawing the Adjusted Net Debt. The Holding Equity Value is achieved by multiplying the stake own by the Equity Value of the Business Areas. Finally it is added (according to the Book Value) Other Financial Stakes and removed the value of both the Adjusted Net Debt and the Net Dividends to Pay. Disclosure of a Sensitivity Analysis that relates Share Price to different combinations of Risk Free Rates to Debt Spreads.
	14	7	Utilities	SOP (EV – DCF)	SOP evaluation approach disclosed in all the reports. The Enterprise Value is achieved by adding (SOP) the different Business Areas DCFs; two small business units are valued at the Price to Book Value. The FCFs forecasts are disclosed for a large amount of years though not for all years considered in the model. The Equity Value is achieved by adding the company Other Financial Investments and withdrawing the Adjusted Net Debt and the Minority Interests. Finally the Equity Value is divided by the number of shares. The WACC assumptions for the main markets are disclosed. Disclosure of a Sensitivity Analysis that relates Share Price to different combinations of Spread Over Governmental Bonds to Debt Spread.
	15	7	Conglomerate	SOP (EV – DCF)	Holding SOP evaluation approach disclosed in all the reports. The Enterprise Value is achieved by adding the DCFs of the different Stakes hold by the Company. One of this stakes is from a company also followed by the IF and therefore the EV comes from multiplying the stake by the Price Target already determined. The Equity Value is achieved by adding the company Other Financial Investments and withdrawing the Adjusted Net Debt Holding and the Minority Interests. Finally the Equity Value is divided by the number of shares. The WACC assumptions for the main markets are disclosed. Disclosure of a Sensitivity Analysis that relates Share Price to different combinations of Spread Over Governmental Bonds to Debt Spread.

We have also examine the length of disclosure regarding the information required to execute the calculative procedure, inputs like the value of the Future Cash-Flows and the time horizon and also the method parameters (such as, discounting rates, market risk premium etc), the main results obtained can be summarized as follow:

Table 18 – Length of Disclosure

Set	Valuation Model	WACC (rate)	WACC Assumptions[11]	Forecast Period	Cash-Flows	Terminal Rate Growth (g)	Terminal Value	Replicable
1	DCF	No	No	No	Yes	No	No	No
2	DCF	Yes	No	No	Yes	Yes	No	No
3	DCF	No	No	No	No	No	No	No
4	DCF	Yes	Yes	Yes	Yes*	Yes	Yes	Yes
5	DCF	Yes	Yes	No	Yes	No	Yes	No
6	DCF	Yes	Yes	No	Yes	No	No	No
7	DCF	Yes	Yes	No	Yes	No	No	No
8	DCF	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	DCF	Yes	Yes	No	No	Yes	No	No
10	DCF	No	No	No	No	No	No	No
11	EM/RC	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	Various	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	DCF	Yes	Yes	Yes	No	Yes	Yes	No
14	DCF	Yes	Yes	Yes	No	No	Yes	No
15	DCF	Yes	Yes	Yes	No	No	Yes	No

The most significant conclusion regarding this matter is that only in two occasions the amplitude of disclosure was sufficient to allow a user of the report to repeat (replicate) the calculation and achieve the same Price Target.

Nevertheless this limitation, Portuguese reports offer broad elements of information related to the method applied, that we can summarize as follows

a) The Valuation Method is always disclosed (13 in 15 times it is a DCF model).
b) About half the times the Cash Flows forecasts are not revealed, large time horizons combine with reports lay out restrictions seems to be the reason.
c) The Cash-Flows discount rate that analysts use is always the WACC, and this value is provided 77% of the times and when that happens in 90% of the times also the WACC assumptions are offered.

[11] WACC Assumptions: Cost of Debt; Percentage of Debt; Beta; Market Premium Tax rate

In short it is possible to affirm that even though lacking the necessary information to replicate the calculation made, Portuguese reports have in general the potential information to enable there readers with an understanding of the principles beyond the Price Targets computation.

6. Conclusions

Throughout this paper we argued that frameworks help investors decide and act. We also argued that these cognitive instruments must rely on information and for that reason analysts' ability to offer the information reports users require should be a valid proxy to their importance in the financial markets. We used Portuguese analyst's reports from the four most relevant Investment Firms to study this ability and by doing so we also aimed to unveil important aspects of analysts' activity in the Portuguese context. Furthermore, we investigated and documented transparency and rigor in Price Target calculations, those qualities in such an important issue, we believe, ought to be mandatory.

The major contributions that arose from our pursuit include (1) a new approach in accessing the importance of sell-side financial analysts and a new method to evaluate it, (2) a pioneer content analysis made to Portuguese sell-side financial analysts' reports (3) a description of their informativeness, and finally (4) a look to the methods analysts use to evaluate companies and to calculate their Price Targets.

Our paper documents that Portuguese analysts' reports in general disclose substantial financial information and the required financial statements. At the same time they provide extensive operational data and performance measurements that are presented both in segment and comparable manners. Furthermore they offer a great amount of forward looking information and are capable to embrace the management's perspective about the firm's business. Although competent to meet users most obvious needs Portuguese Investment Firms reports fail to provide important categories of information like Corporate Governance or Intangible

Assets data, they also lack the ability to deliver Long Term Value Creators matters.

The light that our research shed over the methods used to calculate the Price Targets is consistence and adds to all the previous literature that documented a primacy of Discounted Cash Flows Methods in accessing Price Target values. It also emerges from our research that analysts appear to tailor their valuation methodologies to the intrinsic circumstances of the company.

Overall, our research results provides preliminary evidences that Portuguese Investment Firms financial reports answer the main questions address by the Special Committee on Financial Reporting aka *Jenkins Report*, and are for that reason able to deliver the information reports users need. Moreover they offer suitable data and calculative procedures that enable reports users to build ideas and theories that can justify their actions. These reasons allow us to conclude that sell-side analysts undeniably play an important role in the financial markets.

One potential limitation of our work is related to the size of the sample used but nevertheless this constrain we were able to portray a typical Portuguese sell side financial analyst report. This standard report enabled us to access their average informativeness, but the interpretation of these results can as previous declared be made only relatively - the *Jenkins Report* offers wide principles of reporting not fix measures of the information to be disclose. For this reason we believe that our preliminary quantified examples of how the information categories are distributed in these reports has the undeniable virtue of being a departing point to future academic research that can enhance the utility of both financial reporting and analysts themselves.

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Appendix A: Institutional Investors' rank of desirable analyst by U.S. equity assets under management

Institutional Investors' rank of desirable analyst by U.S. equity assets under management. Source: www.ii.com

Overall Ranking	Attributes	$75 b. or More	$30 b. to $74 b.	$10 b. to $29 b.	$5 b. to $9.9 b.	$1 b to $4.9 b.	Less than $1 b.
1	Industry Knowledge	1	1	1	1	1	1
2	Written Reports	3	2	3	3	3	2
3	Special Services	2	3	2	5	5	5
4	Servicing	4		4	2	6	6
5	Stock Selection	6	5	5	4	2	3
6	Earnings Estimates	5	6	6	6	4	4
7	Quality of Sales Force	7	7	7	7	7	7
8	Market Making/Execution	8	8	8	8	8	8

Appendix B - Coding Results By Report

			EDP REN			JM		PT					S IND		BRISA				
			1			2		3					4		5				
			112	38	86	35	192	46	46	42	46	31	59	71	63	64	62	65	83
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Financial Statements & Tables	1	33	8	25	11	41	11	14	14	14	3	23	29	24	24	24	24	24
a	Balance Sheet	a	1		1		1						1	1	1	1	1	1	1
b	Income Statement	b	1	1	2	1	2	1	1	1	1		1	2	2	2	2	2	2
c	Cash-Flow	c	1		1		1						1	1	1	1	1	1	1
d	Segmented	d	2		1	2	5	1	2	2	2		1	2					
e	Share Performance Holders & Stock Data	e	1	1	1	1	2	1	1	1	1	1	1	1	3	3	3	3	3
f	Key Financials	f	5	2	4	2	8	3	3	3	3		4	7	3	3	3	3	3
g	Estimates	g	14	2	11	4	15	4	5	5	5		11	12	10	10	10	10	10
h	Valuation	h	5	2	3	1	4	1	1	1	1		3	3	4	4	4	4	4
i	Comparables	i	1				1					1							
j	Other	j	2		1		2		1	1	1	1							
2	Financial data	2	4	4	4	1	20	8	6	6	7	1	4	6	1	5	4	3	4
a	Turnover / Revenues	a					4	3	3	1	1						1	1	
b	Margins	b		1			2	1		2	2	1		1		1			
c	EBITDA / Operational Cash Flow	c	2	2	2		5	3	1	1	3		4	3	1	1	1	2	1
d	Capital expenditur / Investment	d	1																
e	Debt / Financial Costs	e																	
f	Dividends	f	1							1									1
g	D&M	g							1										
h	Gearing	h																	
i	Interest cover	i																	
j	Properties (Sale)	j												1					
l	Profit & profitability measures	l		1	1		3		1	1	1			1		1	1		
m	Provision	m																	
n	Tax	n																	
o	Currency	o			1	1	5	1											
p	Working capital / Opex	p														2	1		2
q	Other	q					1												
3	Management´s Operational Data	3	16	9	7	8	24	2	0	1	3	5	0	9	2	4	3	5	5
a	Costs	a	1												1			1	
b	Growth drivers / Value Drivers / KPI??	b		2	1	3	6	1			2	2		2			1		1
c	Products / Productivity / Production / Capacity /Volumes / Stores	c	14	5	5		5	1						2	1			2	2
d	Sales / Market Share / Orders /Demand/ Prices	d	1	2	1	5	13				1	3		5		2	2	2	2
e	Other	e								1						2			
4	Mangement´s Analysis	4	2	0	0	0	3	1	0	0	1	1	2	0	0	0	0	0	10
a	Financial data	a	1										1						1
b	Management Operating Data	b					1	1			1	1							2
c	Macroeconomic Trends	c																	1
d	Market changes / Momentum	d																	
e	Forward-looking Information	e	1																
f	Other External Trends Affecting the Company	f																	
g	Management's plans/ targets, including critical success factors	g					2						1						2
h	Other	h																	4
5	Risk and Opportunities	5	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
a	Risks	a	2																1
b	Opportunities	b	2				1												
c	Swot	c																	1
d	Other	d																	
6	Long Term Value Creators	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
a	Excellence / Inovation / Company Specific	a						1											
b	Other	b																	
7	Background Information	7	0	0	0	0	0	0	0	0	0	1	0	0	13	14	13	15	13
a	Objectives / Strategy	a										1							
b	Vision / Mission	b																	
c	General development of the business	c													2	2	2	2	2
d	Products	d													4	4	4	5	4
e	Industry / Markets	e													3	3	3	4	3
f	Processes	f																	
g	Customers / Clients	g													2	3	2	2	2
h	Competitors	h													1	1	1	1	1
i	Properties	i																	
j	External regulation / Legal Conditions	j													1	1	1	1	1
l	Other	l																	
8	Comparable measures	8	3	1	3	0	4	0	1	0	3	2	0	0	0	0	0	0	0
a	Financial and opertating data	a	2		1				1		2	1							
b	Other Comparisons across peers and competitors	b		1															
c	Stock Performance / Company Valuation	c	1		2		4				1	1							
d	Other	d																	
9	Segment information	9	1	5	7	6	20	4	6	6	3	6	3	0	0	0	1	2	0
a	Industry / Market /Geography / Products	a	1	5	7	6	20	4	6	6	3	6	3				1	2	
b	Other	b																	
10	Corporate governace / Information about management and shareholde	10	0	0	0	0	0	0	0	1	0	2	0	2	3	2	2	3	4
a	Board structure and assignments	a																	
b	Division of power between board and management	b																	
c	Governance in general	c																	
d	Shareholders / Stakes	d								1		1		1	3	2	2	2	2
e	Transactions and relationsghips among related parties	e										1		1				1	1
f	Other	f																	1
11	Intellectual capital / Intangible Assets	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
a	Employees	a																	
b	Core competences	b																	
c	Core knowledge and technology	c																	
d	Organizational, structural & relational capital	d																	
e	Patents / Brand	e																	
f	Other	f																	
12	Analysts analysis	12	49	11	40	9	79	19	19	14	15	10	27	25	20	15	15	13	21
a	Financial Information	a	2	1	11		10	3	3	3	4	2	2	5	5	2	3	2	3
b	Management Operating Information	b	5	2	7		3	3	1		2	2	4	3	4	3	3	1	1
c	Macroeconomic trends	c	2			3	3	2					2	1	2	1	2		3
d	Market Industry changes / momentum	d	1	1			12	1	3	1		2		1		1	1	1	
e	Forward-looking information	e	17	6	11	5	24	6	8	6	8	1	12	9	9	7	6	9	4
f	Other external trends affecting the company	f	4				1	3	3	3		1		1		1			2
g	Management's plans/actions, including critical success factors	g	7	1	2		3	1	1	1		1	4	1					2
h	Stock Estimation / Company Overall Analysis / Stock Performance	h	2		4		11				1	1	3	4					3
i	Past estimation accuracy / Relative reliability / Comparation to last est	i	2		3	1	6												
j	Investments Strategy / Evaluation Assumptions)	j	7		2		6												3
	SI		20			1	38						15	28					36
	NI		3				3							1	4	3	3	1	5
	Total Text Units Of Information		112	38	86	35	192	46	46	42	46	31	59	71	63	64	62	65	83
	Total Table StructuresUnits Of Information		112	38	86	35	192	46	46	42	46	31	59	71	63	64	62	65	83
	Number of Maps		14	3	11	4	18	4	5	5	5	2	11	12	12	12	12	12	12
	Number of Setences		50	10	32	8	67	11	9	8	9	8	21	23	20	20	18	19	53

			EDP						EDP REN						ME								CIMPOR				JM					PORT				
			6						7						8								9				10					11				
			51	52	61	69	55	90	52	97	68	61	70	51	80	86	342	53	93	66	52	178	56	51	69	48	79	196	164	159	71	157	66	312	76	67
			18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
1	Financial Statements & Tables	1	25	25	25	22	25	26	25	25	25	25	22	6	26	25	55	25	25	19	25	46	12	12	24	12	14	30	31	25	17	26	14	45	21	14
a	Balance Sheet	a	1	1	1	1	1	1	1	1	1		1		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
b	Income Statement	b	1	1	1	1	1	1	1	1	1	1	1		2	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
c	Cash-Flow	c	1	1	1	1	1	1	1	1	1	1	1		1	1	2	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
d	Segmented	d	1	1	1		1		1	1	1	1				1	6	1	1	1	1	4					1	4	3	2	1	4		1		
e	Share Performance Holders & Stock Data	e	3	3	3	3	3	4	3	3	3	3	3	3	3	3	4	3	3	3	3	4	2	2	3	2	1	8	4	5	3	4	1	5	3	2
f	Key Financials	f	4	4	4	3	4	3	4	4	4	5	3	1	3	4	8	5	4	3	4	6			1			2	3	1				5		
g	Estimates	g	10	10	10	9	10	10	10	10	10	10	9	1	10	10	19	10	9	7	10	17	4	4	6	4	5	7	5	5	5	5	4	11	4	4
h	Valuation	h	4	4	4	4	4	5	4	4	4	4	4	1	4	4	8	3	5	2	4	5	1	1	2	1	2	1	2	1	2	1	2	1	2	2
i	Comparables	i						1									1					1	1	1	2	1	1	1	4	4	2	2	2	6	5	2
j	Other	j													2		5		1			5	1	1	7	1	1	4	7	4	1	7	2	13	4	1
2	Financial data	2	1	2	3	9	5	10	2	14	4	4	3	4	4	10	27	1	17	12	3	0	3	0	0	1	6	21	14	4	3	21	2	24	0	2
a	Turnover / Revenues	a					2	1	1						2	5	8	1	5	4	2						3	3	2	1		3		10		
b	Margins	b								2		1			1	2	3		5	2								2	1			5		2		
c	EBITDA / Operational Cash Flow	c		1	1	3	1	3	1	4	2	2		3	1	1	5		2	2	1		1				1	3	6	1	2	6	2	6		2
d	Capital expenditur / Investment	d						1		2	1						4		2	1			1									2		1		
e	Debt / Financial Costs	e				4		2		3						1	7		1	1								2				1		3		
f	Dividends	f														1																				
g	D&M	g																																		
h	Gearing	h																										2				1		1		
i	Interest cover	i								2																								1		
j	Properties (Sale)	j																								1										
l	Profit & profitability measures	l	1	1	2	1	2	1		1	1	1		1					2	2								2	3	1						
m	Provision	m																																		
n	Tax	n																																		
o	Currency	o																									2	6	2	1	1	3				
p	Working capital / Opex	p											1																							
q	Other	q				1		2					2										1					1								
3	Management´s Operational Data	3	0	2	0	3	0	3	4	6	11	7	8	13	0	3	5	0	4	3	2	2	5	2	1	1	5	20	14	18	2	10	8	29	0	5
a	Costs	a																					1						1	3						
b	Growth drivers / Value Drivers / KPI??	b						1	1	2	5	3	3	6			2		3	2	1		2		1		1	4	2	6	1	4	4	12		2
c	Products / Productivity / Production / Capacity /Volumes / Stores	c		2		1		2	3	4	6	3	5	7					1	1	1	2	2	2			1	9	2	3		2	2	11		2
d	Sales / Market Share / Orders /Demand/ Prices	d				2						1				3	3									1	3	6	8	5	1	4	2	6		1
e	Other	e																										1	1	1						
4	Mangement´s Analysis	4	0	3	0	19	0	0	0	9	0	0	0	3	0	19	4	0	2	1	0	0	0	0	1	0	0	0	3	8	0	8	0	0	0	1
a	Financial data	a				8				1						8	2															1				
b	Management Operating Data	b		2		2				2						1														2		2				1
c	Macroeconomic Trends	c																												3		1				
d	Market changes / Momentum	d		1		2				1									1											1		2				
e	Forward-looking Information	e				3				1						7	2												1							
f	Other External Trends Affecting the Company	f				1				3																				1						
g	Management's plans/ targets, including critical success factors	g				2				1				3		3				1					1				1			1				
h	Other	h				1													1										1	1		1				
5	Risk and Opportunities	5	0	0	0	0	0	1	0	1	0	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	4	3	5	4	3	0	0	1	0	5
a	Risks	a								1							7					6						3								
b	Opportunities	b															4					5					4		5	4	3					5
c	Swot	c						1									1					1												1		
d	Other	d																																		
6	Long Term Value Creators	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
a	Excellence / Inovation / Company Specific	a															2					1								4						
b	Other	b																																		
7	Background Information	7	9	9	9	9	9	12	9	10	10	10	9	0	4	5	33	4	3	3	3	10	5	6	4	6	8	0	0	0	8		10	6	1	10
a	Objectives / Strategy	a	1	1	1	1	1	2							1	1	7	1				5														
b	Vision / Mission	b															3																			
c	General development of the business	c	2	2	2	2	2	2	1	2	2	2	1				8																1			
d	Products	d	2	2	2	2	2	2	4	4	4	4	4		1	1	6	1	1	1	1	1	1	1	1	1							3	1		4
e	Industry / Markets	e	2	2	2	2	2	2	3	3	3	3	3		2	1	6	2	2	2	2	3	2	2	1	2	3				3		2	1		2
f	Processes	f																															1	2		1
g	Customers / Clients	g	2	2	2	2	2	2	1	1	1	1	1			1	1						1	2	1	1	3				3					2
h	Competitors	h														1	1									1	1				1				1	
i	Properties	i																															3	2		
j	External regulation / Legal Conditions	j						2									1					1														
l	Other	l																					1	1	1	1	1				1					1
8	Comparable measures	8	0	0	0	0	0	2	0	1	0	0	0	0	0	0	2	0	0	0	0	2	0	1	1	0	1	6	4	10	2	4	2	14	3	2
a	Financial and opertating data	a								1							1					1						1		5			1	4		
b	Other Comparisons across peers and competitors	b						2									1											2		3		1		3		2
c	Stock Performance / Company Valuation	c																				1		1	1		1	3	4	2	2	3	1	7	3	
d	Other	d																																		
9	Segment information	9	2	2	5	1	2	3	3	11	7	5	4	7	12	10	43	5	15	9	5	27	5	8	10	8	9	31	22	29	8	21	3	35	9	6
a	Industry / Market /Geography / Products	a	2	2	5	1	2	3	3	11	7	5	4	7	12	10	43	5	15	9	5	27	5	8	10	8	9	31	22	29	8	21	3	35	9	6
b	Other	b																																		
10	Corporate governace / Information about management and shareholde	10	4	2	6	2	2	3	2	3	1	1	1	0	4	1	2	1	5	6	1	4	3	2	1	1	3	2	1	1	3	1	3	8	1	1
a	Board structure and assignments	a																					1													
b	Division of power between board and management	b																																		
c	Governance in general	c								1																										
d	Shareholders / Stakes	d	2	1	2	1	1	2	1	2	1	1	1		1		1	1	3	5	1	2												7		
e	Transactions and relationsghips among related parties	e	2	1	4	1	1	1	1						1				2	1		2	2	2	1	1	3	2	1	1	3	1	3	1	1	1
f	Other	f													2	1	1																			
11	Intellectual capital / Intangible Assets	11	0	0	0	0	1	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0
a	Employees	a																																		
b	Core competences	b															1																			
c	Core knowledge and technology	c								1																				1						
d	Organizational, structural & relational capital	d					1			1																										
e	Patents / Brand	e																												1	1	1				
f	Other	f																																		
12	Analysts analysis	12	10	7	13	4	11	30	7	15	10	9	23	18	30	13	156	17	22	13	13	74	23	20	27	19	29	83	70	54	24	65	24	150	41	21
a	Financial Information	a	3	2	6	2	1	6	1	4	2		3	1	5	2	22	2	8	4	3	4	1	1	1	2	5	10	8	5	6	7	3	12	3	3
b	Management Operating Information	b					1	1	1	2	2	2	2	1	4	1	14	5	6	2	4	3	1	6	5	3	3	7	10	2	3	10	5	28	7	7
c	Macroeconomic trends	c	1				1								3		12					4	2	1	0		1	9	4	2		2	2	6	1	
d	Market Industry changes / momentum	d		1	1			1			2	1			6		14			1		11	4	1	3	2		2	4	7	2	2	2	22	18	1
e	Forward-looking information	e	5	3	4		5	6	3		3	3	3	2	8		22	7	1		4	8	7	5	9	6	9	20	13	17	8	21	7	36	5	7
f	Other external trends affecting the company	f			0				1	1	1	1	2	2		1	21					5	2	1	3	1	4	4	3					3	1	
g	Management's plans/actions, including critical success factors	g			2	1	2	5				1	10	1		2	10					6						4	1	6		7		1		
h	Stock Estimation / Company Overall Analysis / Stock Performance	h	1	1		1	1	4	1	2		1	2	8	3	3	16	3	3	1	2	12	4	4	6	5	7	20	14	13	4	12	5	22	5	3
i	Past estimation accuracy / Relative reliability / Comparation to last est	i						7		5			1	1		4	5		4	5								2	2		1	3		1		
j	Investments Strategy / Evaluation Assumptions)	j								1				2	1		20					21	2	1				5	11	2		1		19	1	
	SI			1										36			1					20				3										
	NI		4	2	3	2	3	24	5	3	3	2	4	1	2	1	6	3	2	4	2	5						1	2	4		2	1	4		
	Total Text Units Of Information		51	52	61	69	55	90	52	97	68	61	70	51	80	86	342	53	93	66	52	178	56	51	69	48	79	196	164	159	71	157	66	312	76	67
	Total Table StructuresUnits Of Information		51	52	61	69	55	90	52	97	68	61	70	51	80	86	342	53	93	66	52	178	56	51	69	48	79	196	164	159	71	157	66	312	76	67
	Number of Maps		12	12	12	11	12	12	12	12	12	12	11	12	14	12	27	12	13	9	12	21	7	7	16	7	8	18	17	14	9	15	8	28	11	8
	Number of Setences		15	14	16	25	14	46	18	30	18	17	28	51	23	26	166	16	31	25	15	106	15	18	20	16	24	73	70	22	23	60	23	142	31	23

			TD			ALTRI					REN						SEMAPA										
			12			13					14						15										
			57	157	54	76	98	88	73	79	232	97	98	94	88	123	79	75	91	76	130	107	97	93			
			52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73		% Total	% Cat.
1	Financial Statements & Tables	1	13	44	14	37	38	37	44	40	62	53	56	47	56	60	49	47	42	42	69	54	54	53	2176	0,49	
a	Balance Sheet	a	1	1	1	2	3	2	2	4	2	2	2	2	2	2	2	3	3	3	5	3	3	3	94	0,02	0,04
b	Income Statement	b	1	1	1	3	2	3	2	3	3	3	2	2	2	2	2	4	4	4	5	4	4	4	121	0,03	0,06
c	Cash-Flow	c	1	1	1	3	2	3	5	2	5	5	5	3	5	7	3	1	1	1	1	1	1	1	101	0,02	0,05
d	Segmented	d		3		2	2	2	3	2	10	8	10	6	10	12	8	8	7	7	13	11	11	9	203	0,05	0,09
e	Share Performance Holders & Stock Data	e	4	8	3	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	190	0,04	0,09
f	Key Financials	f		2		6	7	6	6	6	9	8	7	7	9	8	8	7	5	5	7	5	5	5	279	0,06	0,13
g	Estimates	g	4	7	4	15	15	15	18	16	22	20	19	17	19	21	17	17	15	15	24	19	19	19	769	0,17	0,35
h	Valuation	h	1	2	1	2	3	2	2	2	3	3	3	3	3	2	3	4	3	3	10	7	7	8	224	0,05	0,10
i	Comparables	i	1	10	2	2	2	2	2	2	3	2	2	2	2	2	2	1	2	2	2	2	2	2	91	0,02	0,04
j	Other	j		9	1				2	1	2		4	3	2	2	2								104	0,02	0,05
2	Financial data	2	6	21	8	9	11	9	2	18	22	6	10	3	8	10	0	2	11	9	13	14	7	13	536	0,12	1,00
a	Turnover / Revenues	a	2	5	5	3	2	3	2	1		1	3		1	1			2	2	1	3	2	4	110	0,02	0,21
b	Margins	b			1	1	2			1	1								1	1	1	2		3	51	0,01	0,10
c	EBITDA / Operational Cash Flow	c	2	5	2	3	4	3		5	2	1	1	1	1	1		1	5	3	6	5	3	4	153	0,03	0,29
d	Capital expenditur / Investment	d									4		3		1	3		1			2				30	0,01	0,06
e	Debt / Financial Costs	e	1	6		1	3	1		5	7	2	2	1	1	1			3	3	2	4	2	2	72	0,02	0,13
f	Dividends	f													1										5	0,00	0,01
g	D&M	g									1					2									4	0,00	0,01
h	Gearing	h		1																	1				6	0,00	0,01
i	Interest cover	i		1						2															6	0,00	0,01
j	Properties (Sale)	j		1								1			1										5	0,00	0,01
l	Profit & profitability measures	l	1	2					1																37	0,01	0,07
m	Provision	m										1	1	1	1										4	0,00	0,01
n	Tax	n																							0	0,00	0,00
o	Currency	o								3	1														27	0,01	0,05
p	Working capital / Opex	p				1		1		1	1					1									11	0,00	0,02
q	Other	q									5				1	1									15	0,00	0,03
3	Management´s Operational Data	3	1	7	1	6	9	5	3	1	26	7	7	9	5	14	2	3	1	1	1	2	1	0	411	0,09	1,00
a	Costs	a				1	1				1														11	0,00	0,03
b	Growth drivers / Value Drivers / KPI??	b	1	3		2	4	2	1		11	4	4	4	3	9	1	1							139	0,03	0,34
c	Products / Productivity / Production / Capacity /Volumes / Stores	c				2	3	2	1	1	13	3	3	5	2	5	1	2	1	1	1	2			159	0,04	0,39
d	Sales / Market Share / Orders /Demand/ Prices	d		4	1	1	1	1	1														1		95	0,02	0,23
e	Other	e									1														7	0,00	0,02
4	Mangement´s Analysis	4	2	3	1	0	0	0	3	0	3	1	0	0	0	1	5	0	2	2	3	2	1	0	130	0,03	1,00
a	Financial data	a									1	1													25	0,01	0,19
b	Management Operating Data	b							1																19	0,00	0,15
c	Macroeconomic Trends	c																							5	0,00	0,04
d	Market changes / Momentum	d															2								10	0,00	0,08
e	Forward-looking Information	e	2	1	1				2										1	1	1	1	1		26	0,01	0,20
f	Other External Trends Affecting the Company	f																							5	0,00	0,04
g	Management's plans/ targets, including critical success factors	g		2							2					1	1		1	1	2	1			29	0,01	0,22
h	Other	h															2								11	0,00	0,08
5	Risk and Opportunities	5	3	10	1	0	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	76	0,02	1,00
a	Risks	a	2	8	1																				31	0,01	0,41
b	Opportunities	b	1	2			1	1								2									40	0,01	0,53
c	Swot	c																							5	0,00	0,07
d	Other	d																							0	0,00	0,00
6	Long Term Value Creators	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0,00	1,00
a	Excellence / Inovation / Company Specific	a					1																		9	0,00	1,00
b	Other	b																							0	0,00	0,00
7	Background Information	7	6	0	6	0	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	319	0,07	1,00
a	Objectives / Strategy	a									1					1									25	0,01	0,08
b	Vision / Mission	b																							3	0,00	0,01
c	General development of the business	c																							39	0,01	0,12
d	Products	d	2		2																				82	0,02	0,26
e	Industry / Markets	e	2		2																				85	0,02	0,27
f	Processes	f																							4	0,00	0,01
g	Customers / Clients	g	2		2																				47	0,01	0,15
h	Competitors	h									1														12	0,00	0,04
i	Properties	i																							5	0,00	0,02
j	External regulation / Legal Conditions	j																							9	0,00	0,03
l	Other	l										1													8	0,00	0,03
8	Comparable measures	8	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0,02	1,00
a	Financial and opertating data	a		1	1																				23	0,01	0,29
b	Other Comparisons across peers and competitors	b																							15	0,00	0,19
c	Stock Performance / Company Valuation	c		3																					41	0,01	0,51
d	Other	d		1																					1	0,00	0,01
9	Segment information	9	3	11	3	2	1	1	1	3	6	3	3	6	4	8	1	5	14	9	9	10	13	11	579	0,13	1,00
a	Industry / Market /Geography / Products	a	3	11	3	2	1	1	1	3	6	3	3	6	4	8	1	5	14	9	9	10	13	11	579	0,13	1,00
b	Other	b																							0	0,00	0,00
10	Corporate governace / Information about management and shareholde	10	7	4	4	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	6	4	1	0	130	0,03	1,00
a	Board structure and assignments	a																							1	0,00	0,01
b	Division of power between board and management	b																							0	0,00	0,00
c	Governance in general	c																				1			2	0,00	0,02
d	Shareholders / Stakes	d	5	2	4														1	1	2	2	1		68	0,02	0,52
e	Transactions and relationsghips among related parties	e	2	2												1					4	1			54	0,01	0,42
f	Other	f																							5	0,00	0,04
11	Intellectual capital / Intangible Assets	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0,00	1,00
a	Employees	a																							0	0,00	0,00
b	Core competences	b																							1	2E-04	0,13
c	Core knowledge and technology	c																							2	5E-04	0,25
d	Organizational, structural & relational capital	d																							2	5E-04	0,25
e	Patents / Brand	e																							3	7E-04	0,38
f	Other	f																							0	0,00	0,00
12	Analysts analysis	12	16	52	15	22	37	35	20	17	111	26	22	29	15	26	22	18	20	12	29	21	20	16	2147	0,49	1,00
a	Financial Information	a		9	1	6	9	9	2	3	13	10	6	5	5	5		3	5	4	3	1	6	3	317	0,07	0,15
b	Management Operating Information	b	3	1	1	6	7	6	5	2	24	3	6	5	5	2	1	4	7	1	1		5	1	288	0,07	0,13
c	Macroeconomic trends	c	1	2			1	1			1														78	0,02	0,04
d	Market Industry changes / momentum	d		1	1	3	5	2	3		7							3	1	2	4	4	1	1	171	0,04	0,08
e	Forward-looking information	e		5	3	3	5	8	7	6	20	7	5	10	2	5	1	4	4	2	13	13	2	1	531	0,12	0,25
f	Other external trends affecting the company	f		2	2	1		4	2	1	22	2	1			2	10	1					1		127	0,03	0,06
g	Management's plans/actions, including critical success factors	g	3	7	1					1	10	1				1									107	0,02	0,05
h	Stock Estimation / Company Overall Analysis / Stock Performance	h	7	15	6	1	2	1	1	1	1	1	1	3		3	1	1	1	1	2	2	1	3	273	0,06	0,13
i	Past estimation accuracy / Relative reliability / Comparation to last est	i	2	2		2	3	3		2	2	2	2		2	4		1	2	2			3	5	92	0,02	0,04
j	Investments Strategy / Evaluation Assumptions)	j		8			5	1		1	11		1	6	1	4	9	1			6	1	1	2	163	0,04	0,08
	SI			10		31	7	26	19	13	6	21	27	20	27	23	13		31	31	27	22	32	28	613		
	NI			1		2	2	2	1	2	6						4	2	1	2	3				146		
	Total Text Units Of Information		57	157	54	76	98	88	73	79	232	97	98	94	88	123	79	75	91	76	130	107	97	93	4425		
	Total Table StructuresUnits Of Information		57	157	54	76	98	88	73	79	232	97	98	94	88	123	79	75	91	76	130	107	97	93	2176	29,8082	
	Number of Maps		8	24	8	17	18	17	20	19	29	20	24	20	24	25	21	19	17	17	29	21	21	21	1028	14,0822	
	Number of Setences		20	63	21	37	40	34	21	26	111	36	34	30	30	41	38	13	34	29	43	32	33	32	2444	33,4795	

	EDP REN	JM	PT	S IND	BRISA	EDP	EDP REN	ME	CIMPOR	JM	PORT	TD	ALTRI	REN	SEMAPA		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Number of Reports by Company	3	2	5	2	5	6	6	8	4	5	5	3	5	6	8	4,87	
Average Number of Reports	3				6,25				4,25				6,33			4,95833	300,556
Capitalização Bolsista	6.224	3.795	7.338	336	4.098	11.258	5.674	710	3.676	4.090	1.481	433	426	1.401	849		
	9	5	10	0	6	16	8	1	5	6	2	1	1	2	1		
Number of Maps By Set	28	22	21	23	60	71	71	120	37	66	70	40	91	142	166	68,53	
Number of Sentences By Set	92	75	45	44	130	130	162	408	69	212	279	104	158	282	254	162,93	

Appendix C - Coding Results By Set

			EDP REN 1		JM 2		PT 3		S IND 4		BRISA 5		EDP 6		EDP REN 7		ME 8		CIMPOR 9		JM 10		PORT 11		TD 12		AKLTRI 13		REN 14		SEMAPA 15						Amp		
				2,00		2,00		2,00		2,00		2,00		2,00		2,00		2,00		2,00		2,00		2,00		2,00		2,00		2,00		2,00							
			SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	SOM	%	M		SD	VAR	Min	Max	
1	**Financial Statements & Tables**	**1**	66	1,00	52	1	56	1	52	1	120	1,00	148	1,00	128	1,00	246	1,00	60	1,00	117	1,00	120	1,00	71	1,00	196	1,00	334	1,00	410	1,00	145						
a	Balance Sheet	**a**	2	0,030303	1	0,019231	0	0	2	0,038462	5	0,041667	6	0,040541	4	0,03	7	0,028455	4	0,07	5	0,042735	5	0,041667	3	0,042254	13	0,066327	12	0,03593	25	0,060976	0,04		0,02	0,00	0,00	0,07	
b	Income Statement	**b**	4	0,060606	3	0,057692	4	0,071429	3	0,057692	10	0,083333	6	0,040541	5	0,04	11	0,044715	4	0,07	5	0,042735	5	0,041667	3	0,042254	13	0,066327	14	0,04192	31	0,07561	0,06		0,01	0,00	0,04	0,08	
c	Cash-Flow	**c**	2	0,030303	1	0,019231	0	0	2	0,038462	5	0,041667	6	0,040541	5	0,04	8	0,03252	4	0,07	5	0,042735	5	0,041667	3	0,042254	15	0,076531	30	0,08982	10	0,02439	0,04		0,02	0,00	0,02	0,09	
d	Segmented	**d**	3	0,045455	7	0,134615	7	0,125	3	0,057692	0	0	4	0,027027	4	0,03	15	0,060976	0	0,00	11	0,094017	5	0,041667	3	0,042254	11	0,056122	56	0,16766	74	0,180488	0,07		0,06	0,00	0,00	0,17	
e	Share Performance / Holders & Stock Data	**e**	3	0,045455	3	0,057692	5	0,089286	2	0,038462	15	0,125	19	0,128378	18	0,14	26	0,105691	9	0,15	21	0,179487	15	0,125	15	0,211268	10	0,05102	13	0,03892	16	0,039024	0,10		0,06	0,00	0,04	0,21	
f	Key Financials	**f**	11	0,166667	10	0,192308	12	0,214286	11	0,211538	15	0,125	22	0,148649	21	0,16	37	0,150407	1	0,02	6	0,051282	5	0,041667	2	0,028169	31	0,158163	48	0,14371	47	0,114634	0,13		0,07	0,00	0,02	0,21	
g	Estimates	**g**	27	0,409091	19	0,365385	19	0,339286	23	0,442308	50	0,416667	59	0,398649	50	0,39	92	0,373984	18	0,30	27	0,230769	28	0,233333	15	0,211268	79	0,403061	118	0,35329	145	0,353659	0,35		0,07	0,01	0,21	0,41	
h	Valuation	**h**	10	0,151515	5	0,096154	4	0,071429	6	0,115385	20	0,166667	25	0,168919	21	0,16	35	0,142276	5	0,08	8	0,068376	8	0,066667	4	0,056338	11	0,056122	17	0,0509	45	0,109756	0,10		0,04	0,00	0,05	0,17	
i	Comparables	**i**	1	0,015152	1	0,019231	1	0,017857	0	0	0	0	1	0,006757	0	0,00	2	0,00813	5	0,08	12	0,102564	17	0,141667	13	0,183099	10	0,05102	13	0,03892	15	0,036585	0,05		0,06	0,00	0,00	0,18	
j	Other	**j**	3	0,045455	2	0,038462	4	0,071429	0	0	0	0	0	0	0	0,00	13	0,052846	10	0,17	17	0,145299	27	0,225	10	0,140845	3	0,015306	13	0,03892	2	0,004878	0,06		0,07	0,01	0,00	0,23	
2	**Financial data**	**2**	12	0,070588	21	0,12	28	0,18	10	0,13	17	0,08	30	0,13	31	0,11	74	0,11	4	0,02	48	0,09	49	0,09	35	0,18	49	0,22	59	0,15	69	0,20	0,13	1,00	0,05	0,00	0,02	0,22	536
a	Turnover / Revenues	**a**	0	0,00	4	0,022857	8	0,05	0	0,00	2	0,01	3	0,01	1	0,00	27	0,04	0	0,00	9	0,02	13	0,02	12	0,06	11	0,05	6	0,02	14	0,04	0,02	0,18					
b	Margins	**b**	1	0,005882	2	0,011429	6	0,04	1	0,01	1	0,00	0	0,00	3	0,01	13	0,02	0	0,00	3	0,01	7	0,01	1	0,01	4	0,02	1	0,00	8	0,02	0,01	0,09					
c	EBITDA / Operational Cash Flow	**c**	6	0,035294	5	0,028571	8	0,05	7	0,09	6	0,03	9	0,04	12	0,04	12	0,02	1	0,01	13	0,02	16	0,03	9	0,05	15	0,07	7	0,02	27	0,08	0,04	0,32					
d	Capital expenditur / Investment	**d**	1	0,005882	0	0	0	0,00	0	0,00	0	0,00	1	0,00	3	0,01	7	0,01	1	0,01	0	0,00	3	0,01	0	0,00	0	0,00	11	0,03	3	0,01	0,01	0,04					
e	Debt / Financial Costs	**e**	0	0	0	0	0	0,00	0	0,00	0	0,00	6	0,03	3	0,01	10	0,01	0	0,00	2	0,00	4	0,01	7	0,04	10	0,05	14	0,04	16	0,05	0,02	0,12					
f	Dividends	**f**	1	0,005882	0	0	1	0,01	0	0,00	1	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0,00	0,01					
g	D&M	**g**	0	0	0	0	1	0,01	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	3	0,01	0	0,00	0,00	0,01					
h	Gearing	**h**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	2	0,00	2	0,00	1	0,01	0	0,00	0	0,00	1	0,00	0,00	0,01					
i	Interest cover	**i**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	2	0,01	0	0,00	0	0,00	0	0,00	1	0,00	1	0,01	2	0,01	0	0,00	0	0,00	0,00	0,01					
j	Properties (Sale)	**j**	0	0	0	0	0	0,00	1	0,01	0	0,00	0	0,00	0	0,00	0	0,00	1	0,01	0	0,00	0	0,00	1	0,01	0	0,00	2	0,01	0	0,00	0,00	0,02					
l	Profit & profitability measures	**l**	2	0,011765	3	0,017143	3	0,02	1	0,01	2	0,01	8	0,03	4	0,01	4	0,01	0	0,00	6	0,01	0	0,00	3	0,02	1	0,00	0	0,00	0	0,00	0,01	0,08					
m	Provision	**m**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	4	0,01	0	0,00	0,00	0,01					
n	Tax	**n**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,00					
o	Currency	**o**	1	0,005882	6	0,034286	1	0,01	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	12	0,02	3	0,01	0	0,00	3	0,01	1	0,00	0	0,00	0,01	0,05					
p	Working capital / Opex	**p**	0	0	0	0	0	0,00	0	0,00	5	0,02	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	3	0,01	2	0,01	0	0,00	0,00	0,02					
q	Other	**q**	0	0	1	0,005714	0	0,00	0	0,00	0	0,00	3	0,01	2	0,01	0	0,00	1	0,01	1	0,00	0	0,00	0	0,00	0	0,00	7	0,02	0	0,00	0,00	0,03					
3	**Management´s Operational Data**		32	0,188235	32	0,182857	11	0,07	9	0,12	19	0,09	8	0,03	49	0,18	19	0,03	9	0,05	59	0,11	52	0,09	9	0,05	24	0,11	68	0,17	11	0,03	0,10	1,00	0,06	0,00	0,03	0,19	411
a	Costs	**a**	1	0,005882	0	0	0	0,00	0	0,00	2	0,01	0	0,00	0	0,00	0	0,00	1	0,01	4	0,01	0	0,00	0	0,00	2	0,01	1	0,00	0	0,00	0,00	0,03					
b	Growth drivers / Value Drivers / KPI??	**b**	3	0,017647	9	0,051429	5	0,03	2	0,03	2	0,01	1	0,00	20	0,07	8	0,01	3	0,02	14	0,03	22	0,04	4	0,02	9	0,04	35	0,09	2	0,01	0,03	0,31					
c	Products / Productivity / Production / Capacity /Volumes / Stores	**c**	24	0,141176	5	0,028571	1	0,01	2	0,03	5	0,02	5	0,02	28	0,10	5	0,01	4	0,02	15	0,03	17	0,03	0	0,00	9	0,04	31	0,08	8	0,02	0,04	0,39					
d	Sales / Market Share / Orders /Demand/ Prices	**d**	4	0,023529	18	0,102857	4	0,03	5	0,06	8	0,04	2	0,01	1	0,00	6	0,01	1	0,01	23	0,04	13	0,02	5	0,03	4	0,02	0	0,00	1	0,00	0,03	0,26					
e	Other	**e**	0	0	0	0	1	0,01	0	0,00	2	0,01	0	0,00	0	0,00	0	0,00	0	0,00	3	0,01	0	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0,00	0,02					
4	**Mangement´s Analysis**	**4**	2	0,011765	3	0,017143	3	0,02	2	0,03	10	0,05	22	0,10	12	0,04	26	0,04	1	0,01	11	0,02	9	0,02	6	0,03	3	0,01	5	0,01	15	0,04	0,03	1,00	0,02	0,00	0,01	0,10	130
a	Financial data	**a**	1	0,005882	0	0	0	0,00	1	0,01	1	0,00	8	0,03	1	0,00	10	0,01	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	2	0,01	0	0,00	0,01	0,19					
b	Management Operating Data	**b**	0	0	1	0,005714	3	0,02	0	0,00	2	0,01	4	0,02	2	0,01	1	0,00	0	0,00	2	0,00	3	0,01	0	0,00	1	0,00	0	0,00	0	0,00	0,00	0,17					
c	Macroeconomic Trends	**c**	0	0	0	0	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	3	0,01	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,03					
d	Market changes / Momentum	**d**	0	0	0	0	0	0,00	0	0,00	0	0,00	3	0,01	1	0,00	1	0,00	0	0,00	1	0,00	2	0,00	0	0,00	0	0,00	0	0,00	2	0,01	0,00	0,07					
e	Forward-looking Information	**e**	1	0,005882	0	0	0	0,00	0	0,00	0	0,00	3	0,01	1	0,00	9	0,01	0	0,00	1	0,00	0	0,00	4	0,02	2	0,01	0	0,00	5	0,01	0,01	0,19					
f	Other External Trends Affecting the Company	**f**	0	0	0	0	0	0,00	0	0,00	0	0,00	1	0,00	3	0,01	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,04					
g	Management's plans/ targets, including critical success factors	**g**	0	0	2	0,011429	0	0,00	1	0,01	2	0,01	2	0,01	4	0,01	4	0,01	1	0,01	1	0,00	1	0,00	2	0,01	0	0,00	3	0,01	6	0,02	0,01	0,24					
h	Other	**h**	0	0	0	0	0	0,00	0	0,00	4	0,02	1	0,00	0	0,00	1	0,00	0	0,00	2	0,00	1	0,00	0	0,00	0	0,00	0	0,00	2	0,01	0,00	0,08					
5	**Risk and Opportunities**	**5**	4	0,023529	1	0,005714	0	0,00	0	0,00	2	0,01	1	0,00	1	0,00	24	0,03	0	0,00	19	0,03	6	0,01	14	0,07	2	0,01	2	0,01	0	0,00	0,01	1,00	0,02	0,00	0,00	0,07	76
a	Risks	**a**	2	0,011765	0	0	0	0,00	0	0,00	1	0,00	0	0,00	1	0,00	13	0,02	0	0,00	3	0,01	0	0,00	11	0,06	0	0,00	0	0,00	0	0,00	0,01	0,47					
b	Opportunities	**b**	2	0,011765	1	0,005714	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	9	0,01	0	0,00	16	0,03	5	0,01	3	0,02	2	0,01	2	0,01	0	0,00	0,01	0,46					
c	Swot	**c**	0	0	0	0	0	0,00	0	0,00	1	0,00	1	0,00	0	0,00	2	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,06					
d	Other	**d**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,00					
6	**Long Term Value Creators**	**6**	0	0	0	0	1	0,01	0	0,00	0	0,00	0	0,00	0	0,00	3	0,00	0	0,00	4	0,01	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0,00	1,00	0,00	0,00	0,00	0,01	9
a	Excellence / Inovation / Company Specific	**a**	0	0	0	0	1	0,01	0	0,00	0	0,00	0	0,00	0	0,00	3	0,00	0	0,00	4	0,01	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0,00	1,00					
b	Other	**b**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,00					
7	**Background Information**	**7**	0	0	0	0	1	0,01	0	0,00	68	0,31	57	0,25	48	0,18	65	0,09	21	0,13	16	0,03	27	0,05	12	0,06	0	0,00	4	0,01	0	0,00	0,07	1,00	0,10	0,01	0,00	0,25	319
a	Objectives / Strategy	**a**	0	0	0	0	1	0,01	0	0,00	0	0,00	7	0,03	0	0,00	15	0,02	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	2	0,01	0	0,00	0,00	0,06					
b	Vision / Mission	**b**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	3	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,00					
c	General development of the business	**c**	0	0	0	0	0	0,00	0	0,00	10	0,05	12	0,05	8	0,03	8	0,01	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,01	0,13					
d	Products	**d**	0	0	0	0	0	0,00	0	0,00	21	0,10	12	0,05	20	0,07	13	0,02	4	0,02	0	0,00	8	0,01	4	0,02	0	0,00	0	0,00	0	0,00	0,02	0,27					
e	Industry / Markets	**e**	0	0	0	0	0	0,00	0	0,00	16	0,07	12	0,05	15	0,06	20	0,03	7	0,04	6	0,01	5	0,01	4	0,02	0	0,00	0	0,00	0	0,00	0,02	0,26					
f	Processes	**f**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	4	0,01	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,01					
g	Customers / Clients	**g**	0	0	0	0	0	0,00	0	0,00	11	0,05	12	0,05	5	0,02	2	0,00	5	0,03	6	0,01	2	0,00	4	0,02	0	0,00	0	0,00	0	0,00	0,01	0,17					
h	Competitors	**h**	0	0	0	0	0	0,00	0	0,00	5	0,02	0	0,00	0	0,00	2	0,00	1	0,01	2	0,00	1	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0,00	0,04					
i	Properties	**i**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	5	0,01	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,01					
j	External regulation / Legal Conditions	**j**	0	0	0	0	0	0,00	0	0,00	5	0,02	2	0,01	0	0,00	2	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,03					
l	Other	**l**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	4	0,02	2	0,00	1	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0,00	0,03					
8	**Comparable measures**	**8**	7	0,041176	4	0,022857	6	0,04	0	0,00	0	0,00	2	0,01	1	0,00	4	0,01	2	0,01	23	0,04	25	0,04	6	0,03	0	0,00	0	0,00	0	0,00	0,02	1,00	0,02	0,00	0,00	0,04	80
a	Financial and opertating data	**a**	3	0,017647	0	0	4	0,03	0	0,00	0	0,00	0	0,00	1	0,00	2	0,00	0	0,00	6	0,01	5	0,01	2	0,01	0	0,00	0	0,00	0	0,00	0,01	0,32					
b	Other Comparisons across peers and competitors	**b**	1	0,005882	0	0	0	0,00	0	0,00	0	0,00	2	0,01	0	0,00	1	0,00	0	0,00	5	0,01	6	0,01	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,14					
c	Stock Performance / Company Valuation	**c**	3	0,017647	4	0,022857	2	0,01	0	0,00	0	0,00	0	0,00	0	0,00	1	0,00	2	0,01	12	0,02	14	0,03	3	0,02	0	0,00	0	0,00	0	0,00	0,01	0,52					
d	Other	**d**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	1	0,01	0	0,00	0	0,00	0	0,00	0,00	0,02					
9	**Segment information**	**9**	13	0,076471	26	0,148571	25	0,16	3	0,04	3	0,01	15	0,07	37	0,14	126	0,18	31	0,19	99	0,18	74	0,13	17	0,09	8	0,04	30	0,08	72	0,21	0,12	1,00	0,06	0,00	0,01	0,21	579
a	Industry / Market /Geography / Products	**a**	13	0,076471	26	0,148571	25	0,16	3	0,04	3	0,01	15	0,07	37	0,14	126	0,18	31	0,19	99	0,18	74	0,13	17	0,09	8	0,04	30	0,08	72	0,21	0,12	1,00					
b	Other	**b**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,00					
10	**Corporate governace / Information about management and shareholders**	**10**	0	0	0	0	3	0,02	2	0,03	14	0,06	19	0,08	8	0,03	24	0,03	7	0,04	10	0,02	14	0,03	15	0,08	0	0,00	1	0,00	13	0,04	0,03	1,00	0,03	0,00	0,00	0,08	130
a	Board structure and assignments	**a**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	1	0,01	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,01					
b	Division of power between board and management	**b**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,00					
c	Governance in general	**c**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	1	0,00	0,00	0,01					
d	Shareholders / Stakes	**d**	0	0	0	0	2	0,01	1	0,01	11	0,05	9	0,04	6	0,02	14	0,02	0	0,00	0	0,00	7	0,01	11	0,06	0	0,00	0	0,00	7	0,02	0,02	0,54					
e	Transactions and relationsghips among related parties	**e**	0	0	0	0	1	0,01	1	0,01	2	0,01	10	0,04	1	0,00	6	0,01	6	0,04	10	0,02	7	0,01	4	0,02	0	0,00	1	0,00	5	0,01	0,01	0,41					
f	Other	**f**	0	0	0	0	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	4	0,01	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,02					
11	**Intellectual capital / Intangible Assets**	**11**	0	0	0	0	0	0,00	0	0,00	0	0,00	1	0,00	2	0,01	1	0,00	0	0,00	3	0,01	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	1,00	0,00	0,00	0,00	0,01	8
a	Employees	**a**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,00					
b	Core competences	**b**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,07					
c	Core knowledge and technology	**c**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,27					
d	Organizational, structural & relational capital	**d**	0	0	0	0	0	0,00	0	0,00	0	0,00	1	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,39					
e	Patents / Brand	**e**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	2	0,00	1	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,27					
f	Other	**f**	0	0	0	0	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0,00	0,00					
12	**Analysts analysis / Opinion**	**12**	100	0,588235	88	0,50	77	0,50	52	0,67	84	0,39	75	0,33	82	0,30	338	0,48	89	0,54	260	0,47	301	0,54	83	0,42	131	0,60	229	0,58	158	0,47	0,49	1,00	0,10	0,01	0,30	0,67	2147
a	Financial Information	**a**	14	0,082353	10	0,057143	15	0,10	7	0,09	15	0,07	20	0,09	11	0,04	50	0,07	5	0,03	34	0,06	28	0,05	10	0,05	29	0,13	44	0,11	25	0,07	0,07	0,15					
b	Management Operating Information	**b**	14	0,082353	3	0,017143	8	0,05	7	0,09	12	0,06	2	0,01	10	0,04	39	0,06	15	0,09	25	0,05	57	0,10	5	0,03	26	0,12	45	0,11	20	0,06	0,06	0,13					
c	Macroeconomic trends	**c**	2	0,011765	6	0,034286	2	0,01	3	0,04	8	0,04	2	0,01	0	0,00	19	0,03	3	0,02	16	0,03	11	0,02	3	0,02	2	0,01	1	0,00	0	0,00	0,02	0,04					
d	Market Industry changes / momentum	**d**	2	0,011765	12	0,068571	7	0,05	1	0,01	3	0,01	3	0,01	3	0,01	32	0,05	10	0,06	15	0,03	45	0,08	2	0,01	13	0,06	7	0,02	16	0,05	0,04	0,07					
e	Forward-looking information	**e**	34	0,2	29	0,165714	29	0,19	21	0,27	35	0,16	23	0,10	14	0,05	50	0,07	27	0,16	67	0,12	76	0,14	8	0,04	29	0,13	49	0,12	40	0,12	0,14	0,28					
f	Other external trends affecting the company	**f**	4	0,023529	1	0,005714	10	0,06	1	0,01	3	0,01	0	0,00	8	0,03	27	0,04	7	0,04	11	0,02	4	0,01	4	0,02	8	0,04	27	0,07	12	0,04	0,03	0,06					
g	Management's plans/actions, including critical success factors	**g**	10	0,058824	3	0,017143	4	0,03	5	0,06	2	0,01	10	0,04	12	0,04	18	0,03	0	0,00	11	0,02	8	0,01	11	0,06	1	0,00	12	0,03	0	0,00	0,03	0,06					
h	Stock Estimation / Company Overall Analysis / Stock Performance	**h**	6	0,035294	11	0,062857	2	0,01	7	0,09	3	0,01	8	0,03	14	0,05	43	0,06	19	0,12	58	0,11	47	0,08	28	0,14	6	0,03	9	0,02	12	0,04	0,06	0,12					
i	Past estimation accuracy / Relative reliability / Comparation to last estimations / Change in Estimations	**i**	5	0,029412	7	0,04	0	0,00	0	0,00	0	0,00	7	0,03	7	0,03	18	0,03	0	0,00	5	0,01	4	0,01	4	0,02	10	0,05	12	0,03	13	0,04	0,02	0,04					
j	Investments Strategy / Evaluation Assumptions)	**j**	9	0,052941	6	0,034286	0	0,00	0	0,00	3	0,01	0	0,00	3	0,01	42	0,06	3	0,02	18	0,03	21	0,04	8	0,04	7	0,03	23	0,06	20	0,06	0,03	0,06					
	SI		20		39		0		43		36		1		36		21		3		0		0		10		96		124		184		1,00						
	NI		3		3		0		1		16		38		18		25		0		7		7		1		9		6		12								
	Text Codification Units (Total)		170	1,00	175	1,00	155	1,00	78	1,00	217	1,00	230	1,00	271	1,00	704	1,00	164	1,00	552	1,00	558	1,00	197	1,00	218	1,00	398	1,00	338	4425	295						
	Maps Codification Units (Total)		66		52		56		52		120		148		128		246		60		117		120		71		196		334		410	2176							
	Maps		28		22		21		23		60		71		71		120		37		66		55		40		91		113		166	984							
	Setences		92		75		45		44		130		130		162		408		69		212		219		104		158		171		169								

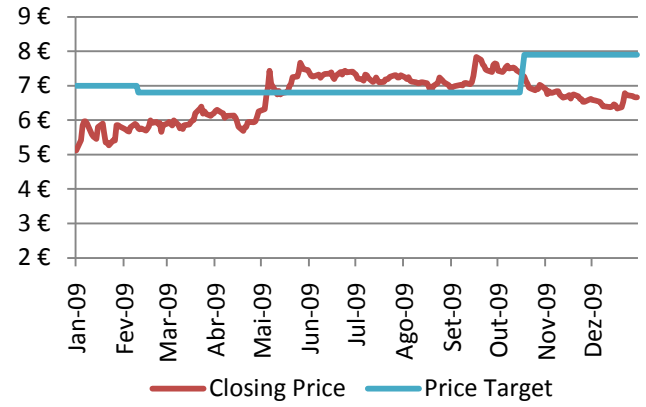
Appendix D: Growth Drivers/Value Drivers and Segmented Information

	Growth Driver / Value Drivers	***Segmented Information***
Altri	• ***BHKP Prices*** • ***Pulp Prices*** • ***New Capacity Investments*** • ***Expansion Movements***	• ***Celbi*** • ***Caima*** • ***Celtejo*** • ***Portugal*** • ***Brazil*** • ***Spain*** • ***South Africa*** • ***Egypt*** • ***China*** • ***India***
Brisa	• ***Macro Economic Environment*** • ***New Investments*** • ***Oil Prices*** • ***Events affecting traffic***	• ***Main concession*** • ***Atlântico*** • ***Brisal*** • ***Douro Litoral*** • ***Northwest Parkway*** • ***Brasil***
Cimpor	• ***Macro Economic Environment*** • ***New Investments*** • ***Expansion Movements*** • ***New Capacity Investments***	• ***Portugal*** • ***Espanha*** • ***Marrocos*** • ***Tunisia*** • ***Egipto*** • ***Turquia*** • ***Brasil*** • ***Moçambique*** • ***Àfrica do Sul*** • ***Cabo Verde*** • ***China***
EDP	• ***Macro Economic Environment*** • ***New Investments***	• ***Generation & Supply (Iberia)*** • ***Renewables*** • ***Distribution (Iberia)*** • ***Gas (Iberia)*** • ***Br*** • ***Others & Adjustments***
EDPR	• ***Macro Economic Environment*** • ***New Investments/Acquisitions/Capex*** • ***Capacity Increases***	• ***Portugal*** • ***Spain*** • ***RoE*** • ***USA*** • ***Other***
Jerónimo Martins	• ***Macro Economic Environment*** • ***Expansion Movements / Stores Openings***	• ***Biedronka*** • ***Pingo Doce*** • ***Feira Nova*** • ***Ex-Plus Stores*** • ***Poland*** • ***Portugal*** • ***Easter Europe*** • ***Retail*** • ***Mini-Hypers*** • ***Cash Carry (Recheio)*** • ***Hard-Discounters***
Mota Engil	• ***Macro Economic Environment*** • ***New Investments*** • ***Governmental and other Institutional Investments*** • ***Expansion Movements*** • ***Events affecting traffic*** • ***Oil Prices***	• ***Construction*** • ***Env. & Services (Waste Management ; Water Supply)*** • ***Concessions*** • ***Portugal*** • ***Angola*** • ***East Europe*** • ***Slovakia*** • ***Mozambique*** • ***Peru*** • ***Triu*** • ***Suma***

Portucel	• ***BEKP Prices*** • ***UWF Prices*** • ***New Investments*** • ***New Capacity***	• ***BEKP (Activity)*** • ***UWF (Activity)*** • ***Energy***
PT	• ***Wireline*** • ***Vivo*** • ***TMN***	• ***Number of Costumers/Subscribers*** • ***Market Share***
REN	• ***New Investments*** • ***Investments in Regulated Assets (RAB)*** • ***New Rates (ROR)*** • ***Capex Schedule***	• ***Gaz (business)*** • ***Electricity*** • ***Telecom*** • ***Portugal (Geography)*** • ***Spain*** • ***Eua***
Semapa	• ***Macro Economic Environment*** • ***New Investments*** • ***Pulp Prices***	• ***Portucel (Pulp & Paper)*** • ***Secil (Cement) (Angola, Lebanon, Tunisia*** • ***ETSA (Animals foos)***
Sonae Industria	• ***Macro Economic Environment*** • ***New Investments*** • ***Capex***	• ***Iberia*** • ***Central Europe*** • ***Rest of the World*** • ***North Ireland***
TD	• ***Macro Economic Environment*** • ***New Investments*** • ***Governmental and other Institutional Investments*** • ***Expansion Movements***	• ***International Construction*** • ***Retail (Food, Auto, Fuel etc)*** • ***Real Estate*** • ***Algeria, Spain. Mozambique, Angola*** • ***Africa***

Appendix E – Rating History

EDP Renováveis



Date	Price Target	Closing Price
11-02-2009	6.80	5.73
22-07-2009	6.80	7.17
19-10-2009	7.90	7.09

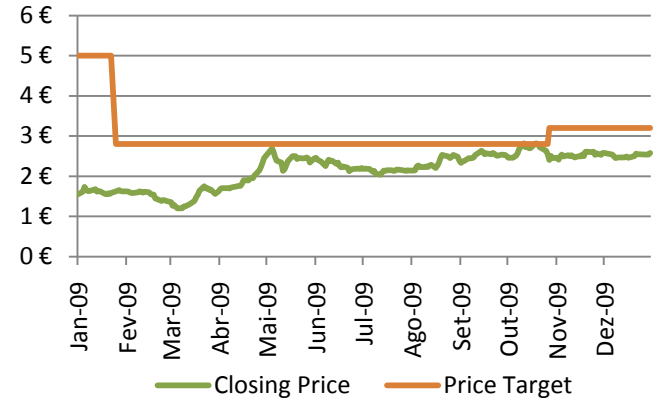
Jerónimo Martins

Date	Price Target	Closing Price
08-01-2009	6.10	3.66
21-10-2009	6.50	6.00

Portugal Telecom

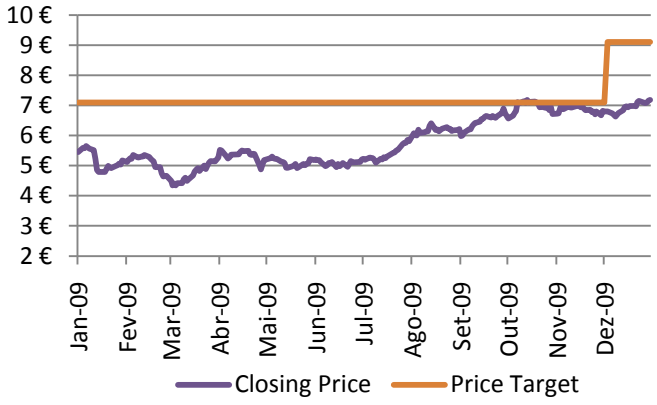
Date	Price Target	Closing Price
29-01-2009	7.30	6.22
04-05-2009	7.40	5.95
04-08-2009	7.40	7.18
29-10-2009	9.00	7.93
17-12-2009	9.00	8.32

Sonae Industria



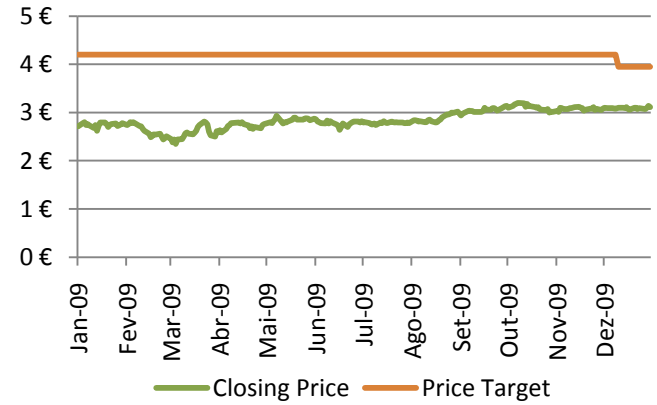
Date	Price Target	Closing Price
26-01-2009	2.80	1.62
28-10-2009	3.20	2.40

Brisa



Date	Price Target	Closing Price
23-02-2009	7.10	4.95
27-04-2009	7.10	5.02
23-07-2009	7.10	5.50
27-10-2009	7.10	6.96
04-12-2009	9.10	6.80

EDP



Date	Price Target	Closing Price
03-03-2009	4.20	2.38
05-05-2009	4.20	2.78
27-07-2009	4.20	2.79
31-07-2009	4.20	2.78
27-10-2009	4.20	3.00
10-12-2009	3.95	3.95

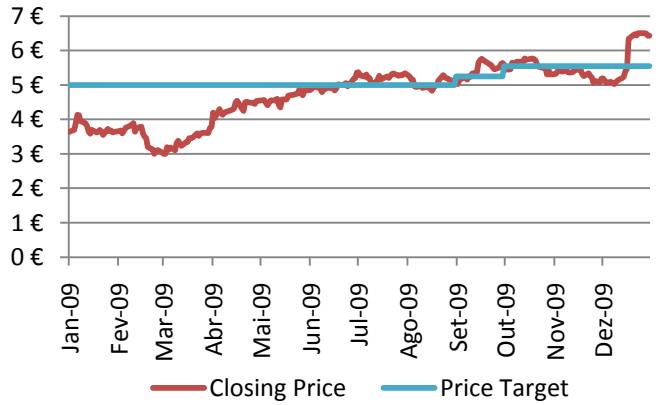
EDP Renováveis

Date	Price Target	Closing Price
19-02-2009	8.15	5.92
27-02-2009	8.15	5.82
04-05-2009	8.15	6.28
23-10-2009	8.15	6.81
29-10-2009	8.15	6.98
07-12-2009	7.90	6.50

Mota Engil

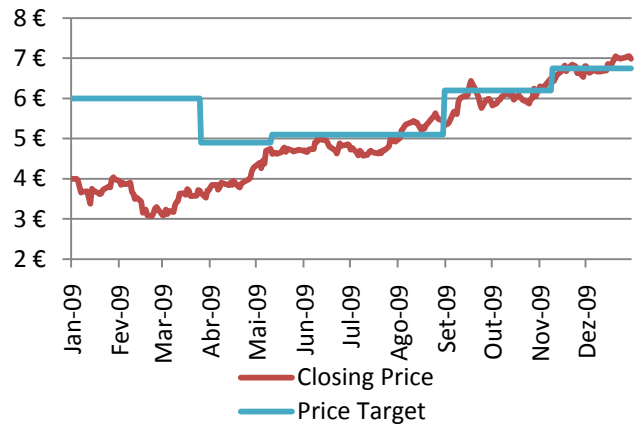
Date	Price Target	Closing Price
30-03-2009	6.05	2.38
31-03-2009	6.05	2.52
23-04-2009	5.00	3.00
25-08-2009	5.00	3.43
31-08-2009	5.00	3.31
17-11-2009	5.00	4.08
14-12-2009	5.35	3.52

Cimpor



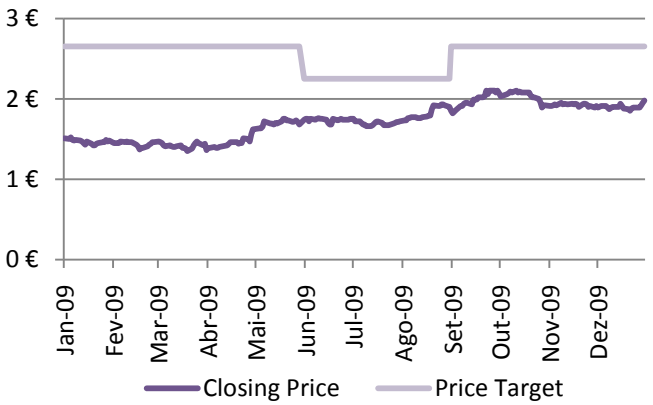
Date	Price Target	Closing Price
01-01-2009	5.00	3.64
01-09-2009	5.25	5.04
01-10-2009	5.55	5.59
01-11-2009	5.55	5.31

Jerónimo Martins



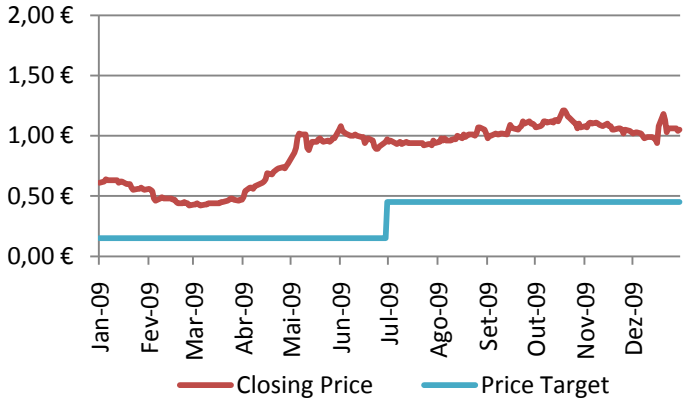
Date	Price Target	Closing Price
01-01-2009	6.00	4.00
27-03-2009	4.90	3.64
12-05-2009	5.10	4.62
18-06-2009	5.10	4.81
01-09-2009	6.20	5.32
10-11-2009	6.75	6.50

Portucel



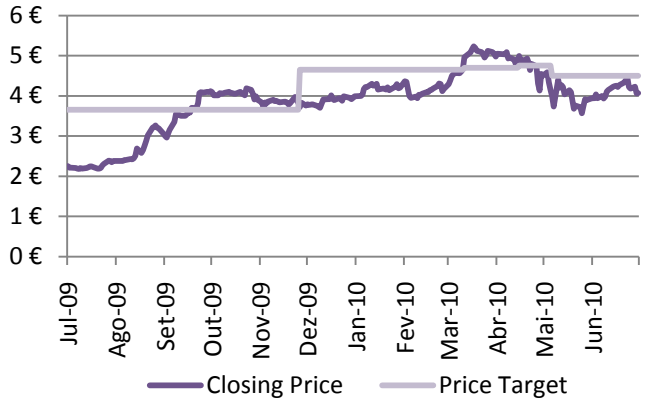
Date	Price Target	Closing Price
01-01-2009	2.65	1.51
01-06-2009	2.25	1.74
19-08-2009	2.25	1.79
01-09-2009	2.65	1.85

Teixeira Duarte



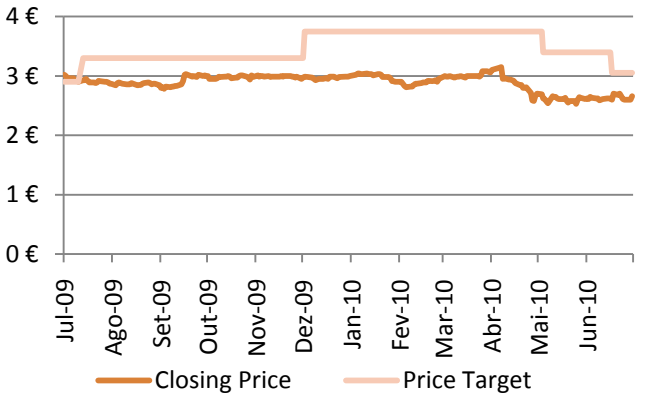
Date	Price Target	Closing Price
01-01-2009	0.15	0.61
01-07-2009	0.45	0.97
01-09-2009	0.45	7.09

Altri



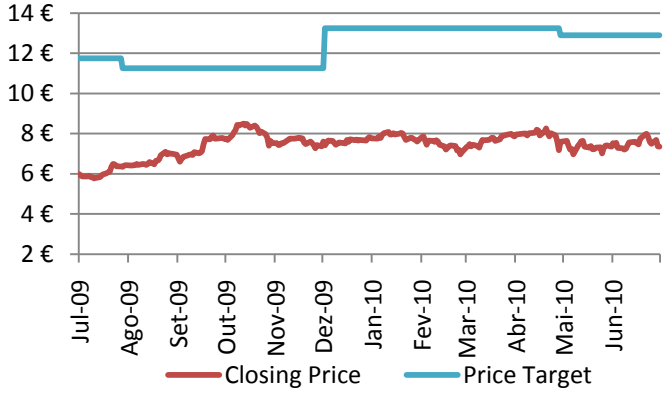
Date	Price Target	Closing Price
27-08-2009	3.65	3.21
26-11-2009	4.65	3.72
11-03-2010	4.70	4.96
15-04-2010	4.99	4.99
06-05-2010	4.50	3.99

REN



Date	Price Target	Closing Price
13-07-2009	3.30	2.93
29-07-2009	3.30	2.89
29-10-2009	3.30	3.01
02-12-2009	3.75	2.99
01-03-2010	3.75	2.99
04-05-2010	3.40	2.62
17-06-2010	3.05	2.60

Semapa



Date	Price Target	Closing Price
28-07-2009	11.25	6.35
26-08-2009	11.25	7.03
28-10-2009	11.25	7.40
02-12-2009	13.25	7.41
02-02-2010	13.25	7.85
08-02-2010	13.25	7.64
29-04-2010	12.90	7.59

Appendix F - Literature Review

Work	***Author(s)***	***Date***	***Scope***
Disclosure Indices Design: Does it make a difference	Urquiza, Francisco Bravo, Maria Cristina Abad Navarro and Marco Trombetta	2009	*Disclosure Pratices*
A Review of the Empirical Disclosure Literature	Healy, Paul M. and Krishna G. Palepu	2000	*Disclosure Pratices*
Herding Among Investment Newsletters: Theory and Evidence	Graham, John R.	1998	*"Herding" / Bias / Information Cascades*
Who herds?	Bernhardt, Dan and Murillo Campello and Edward Kutsoati	2002	*"Herding" / Bias / Information Cascades*
Herd behavior and investment	Scharfstein, David S. and Jeremy C. Stein	1990	*"Herding" / Bias / Information Cascades*
Security analysts' career concerns and herding of earnings forecasts	Harrison Hong, Jeffrey D. Kubik and Amit Solomon	2000	*"Herding" / Bias / Information Cascades*
Analyst forecasts and herding behavior	Trueman, B.	1994	*"Herding" / Bias / Information Cascades*
Herding Among Security Analysts	Welch, Ivo	1999	*"Herding" / Bias / Information Cascades*
Fool's Gold: Social Proof in the Initiation and Abandonment of Coverage by Wall Street Analysts	Rao, Hayagreeva and Henrich R. Greve and Gerald F. Davis	2007	*"Herding" / Bias / Information Cascades*
A Theory Of Fads, Fashion, Custom, and Cultural Change as Informational Casacades	Bikhchandani, Sushil and David Hirshleifer and Ivo Welch	1992	*"Herding" / Bias / Information Cascades*
Analyst forecasts and herding behavior	Trueman, B.	1994	*"Herding" / Bias / Information Cascades*
Are analysts biased? An analysis of analysts' stok recommendations that perform contrary to expectations	Mokoteli, Thabang, Richard J Taffler and Paul Ryan	2006	*"Herding" / Bias / Information Cascades*
Reputational cheap talk	Ottaviani, Marco and Peter Norman Sørensen	2004	*"Herding" / Bias / Information Cascades*
A Survey of investment appraisal methods used by financial analysts in South Africa	Loveell-Greene, N J , J F Affleck-Gravs and A H Money	1986	*Valuation Models*
A Synthesis of Equity Valuation Techniquesand the Terminal Value Calculationfor the Dividend Discount Model	Penman, Stephen H.	1997	*Valuation Models*
Valuation: Measuring and Managing the Value of Companies	Copeland, T., T. Koller, and J. Murrin, McKinsey and Company,	2000	*Valuation Models*
Business Analysis and Valuation	Palepu K., P. Healy, and V. Bernard	2000	*Valuation Models*
How Do Analysts Use Their Earnings Forecasts in Generating Stock Recommendations?	Bradshaw, Mark T.	2002	*Valuation Models*
How Do Analysts Use Their Earnings Forecasts in Generating Stock Recommendations?	Bradshaw, Mark T.	2000	*Valuation Models*
A study of financial analysts: Practice and theory	Block, Stanley L.	1999	*Valuation Models*
Financial Statement Analysis and Security Valuation	Penman, Stephen H.	2001	*Valuation Models*
A survey of the methods used by U.K. analysts to appraise investments in ordinary shares	Arnold J., and P. Moizer	1984	*Valuation Models*
The role of dividends in valuation models used by analysts and fund managers	Barker, Richard G.	1999	*Valuation Models*
Ratio Analysis and Equity Valuation	Nissim, Doron and Stephen H. Penman	1999	*Valuation Models*
Share Appraisal by Investment Analysts - Portofolio vs. Non-Portfolio Mangers	Moizer, Peter	1984	*Valuation Models*
An Analysis of Brokerage House Securities Recommendations	Groth, John C., Wilbur G. Lewellen, Gary G. Schlarbaum, and Ronald C	1979	*Market reactions to analysts reports*
The Effect of Value Line Investment Survey Rank Changes on Common Stock Prices	Stickel, Scott E.	1985	*Market reactions to analysts reports*
The "Dartboard" Column: Second-Hand Information and Price Pressure	Barber, Brad M , Douglas Loeffler	1993	*Market reactions to analysts reports*
When Security Analysts Talk, Who Listens?	Mikhail, Michael B. and Beverly R. Walther and Richard H. Willis	2007	*Market reactions to analysts reports*
Fundamental Analysis Strategy and the Prediction of Stock Returns	Elleuch, Jaouida and Lotfi Trabelsi	2009	*Market reactions to analysts reports*
The Impact of Research Reports on Stock Prices in Italy	Belcredi, Massimo, Stefano Bozzi and Silvia Rigamonti	2003	*Market reactions to analysts reports*
Dissemination of stocks recommendations and small investors: who benefits?	Yazici, Bilgehan and Gulnur Muradoglu	2002	*Market reactions to analysts reports*
The Information Content of Financial Analysts Forecast of Earnings: Some evidence on semi-strong inefficiency	Givoly, D. and Lakonishok, J.	1979	*Market reactions to analysts reports*
The Impact Of Analysts Recommendations Evidence From The Athens Stock Exchange	Glezakos, Michalis and Anna Merika	2007	*Market reactions to analysts reports*
Do Sell-Side Analysts Exhibit Differential Target Price Forecasting Ability?	Bradshaw, Mark T. & Lawrence D. Brown	2006	*Price Target / Earnings Accuracy*
Target Price Accuracy in Equity Research	Bonini, Steffano, Laura Zanetti and Roberto Bianchini	2009	*Price Target / Earnings Accuracy*
An Empirical Analysis of Analysts' Target Prices: Short-term Informativeness and Long-term Dynamics	Brav, Alon and Reuven Lehavy	2003	*Price Target / Earnings Accuracy*
The Characteristics of Individual Analysts' Forecasts in Europe	Bolliger, Guido	2001	*Price Target / Earnings Accuracy*
Can Stock Market Forecasters Forecast?	Cowles, Alfred III	1933	*Investment strategies based on analyst' recommendations*
Do Brokerage Analysts`Recommendations Have Investment Value?	Womak, Kent L.	1996	*Efficient-market hypothesis* *Investment strategies based on analyst' recommendations* *Market reactions to analysts reports*
Brokerage Recommendations: Stylized Characteristics, Market Responses, and Biases	Michaely Roni & Kent L. Womack	1999	*Efficient-market hypothesis* *Investment strategies based on analyst' recommendations* *Market reactions to analysts reports* *Analysts Biases*
Security analysts as frame-makers	Beunza, Daniel & Raghu Garud	2005	*Analysts as Frame-Makers* *Information content of financial analysts reports*
The information content of financial analysts reports. An empirical analysis	Cavezzali, Elisa	2007	*Valuation Models* *Price Target / Earnings Accuracy* *Information content of financial analysts reports.*
The information content of analyst stock recommendations	Krische, Susan D. and Charles M. C. Lee	2000	*Investment strategies based on analyst' recommendations* *Market reactions to analysts reports* *Bias*
Information Content of Equity Analyst Reports	Asquith, Paul and Michael B. Mikhail and Andrea S. Au	2003	*Valuation Models* *Market reactions to analysts reports* *Information content of financial analysts reports.*
What Drives the Forward-Looking Content of Sell-Side Analysts' Reports?	Hussainey, Khaled and Martin Walker	2008	*Information content of financial analysts reports.* *Valuation Models*
A Content Analysis of Sell-Side Financial Analyst Company Reports	Previts, Gary John and Robert J. Brioker and Thomas R. Robinson,	1994	*Information content of financial analysts reports.* *Information Analysts use*
What Valuation Models Do Analysts Use?	Demirakos, Efthimios G, Norman C. Strong and Martin Walker	2004	*Information content of financial analysts reports.* *Valuation Models*
Content analysis of information cited in reports of sell-side financial analysts	Rogers, Rodney K. and Julia Grant	1997	*Information Analysts use* *Information content of financial analysts reports.*
Accounting information and analyst stock recommendation decisions: a content analysis approach	Breton, Gaetan and Richard J. Taffler	2001	*Information Analysts use* *Information content of financial analysts reports.*

Appendix F - Literature Review

The use of target prices to justify sell-side analysts´stock recommendations	Bradshaw, Mark T.	2001	*Price Target / Earnings Accuracy* *Valuation Models*
The appraisal of ordinary shares by investment analysts in United Kingdom and Germany	Pike, Richard, Johannes Meerjanssen and Leslie Chadwick	1993	*Information Analysts use* *Valuation Models*
Corporate Disclosure Policy and Analyst Behavior	Lang, Mark and Rusell Lundholm	1996	*Price Target / Earnings Accuracy* *Disclosure Praices*
Properties of Analysts' Forecasts of Earnings: A Review and Analysis of the Research	Givoly, D., and J. Lakonishok	1984	*Price Target / Earnings Accuracy*
The Information Content of Financial Analysts Forecast of Earnings: Some evidence on semi-strong inefficiency	Givoly, D. and Lakonishok, J.	1979	*Price Target / Earnings Accuracy* *Efficient-market hypothesis* *Information content of financial analysts reports.* *Market reactions to analysts reports*
Reputation and performance among security analysts of Finance	Stickel, Scott E	1992	*Price Target / Earnings Accuracy* *Market reactions to analysts reports*
The Earnings Forecast Accuracy, Valuation Model Use, and Price Target Performance of Sell-Side Equity Analysts	Gleason, Cristi A. , W. Bruce Johnson, and Haidan Li	2006	*Analysts' Recommendation Strategies* *Price Target / Earnings Accuracy*
Do Accurate Earnings Forecasts Facilitate Superior Investment Recommendations?	Loh, Roger K. and M. Mian	2003	*Market reactions to analysts reports* *Investment strategies based on analyst' recommendations* *Price Target / Earnings Accuracy*
Analyzing the analysts when do recommendations add value	Jegadeesh, Narasimhan, Joonghyuk Kim, Susan D. Krische and Charles M. C. Lee	2001	*"Herding"* *Investment strategies based on analyst' recommendations* *Market reactions to analysts reports*
Using content analysis as a research method to inquire into intellectual capital reporting	J. Guthrie, R. Petty, K. Yongvanich and F. Ricceri	2004	*Information content of financial analysts reports.* *Intelectual Capital*
A Methodology for Analysing and Evaluating Narratives in Annual Reports: A Comprehensive Descriptive Profile and Metrics for Disclosure Quality Attributes	Beattie, Vivien, Bill McInnes and Stella Fearnley	2004	*Information content of financial analysts reports.* *Quantity vs Quality*
A Review of Capital Asset Pricing Models	Galagedera, Don U.A.	2004	*CAPP*
Can Investors Profit from the Prophets Security Analyst Recommendations	Barber, Brad and Reuven Lehavy and Maureen Mcnichols and Brett Trueman	2001	*Market reactions to analysts reports* *Investment strategies based on analyst' recommendations*
The Objectives Of Financial Statements An Empirical Study Of The Use Of Cash Flow And Earnings	Govindarajan, V.	1980	*Valuation Models* *Information content of financial analysts reports.*
Tracking Analysts' Forecasts over the Annual Earnings Horizon: Are Analysts' Forecasts Optimistic or Pessimistic?	Richardson, Scott and Siew Hong Teoh	1999	*Bias* *Price Target / Earnings Accuracy*
Financial analysts' reports: an extended institutional theory evaluation	Fogarty, Timothy J. and and Rodney K. Rogers	2005	*Information content of financial analysts reports.*
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