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Do analysts anticipate and react to bankruptcy? Evidence from financial and strategic bankruptcies [1]

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Abstract

Finance literature suggests that financial analysts are sophisticated agents that act as facilitators of market efficiency by releasing relevant information to the market. This paper uses a sample of four major US bankruptcies to explore if analysts are able to disclose information to the market that provides investors with material information for their investment decisions. In particular, we use a qualitative approach to analyse analysts' reports in order to verify if these agents are able to predict financial and strategic bankruptcies before the event is publicly known. We also investigate how financial analysts react to bankruptcy shortly after it has become effective. Results show that investors cannot rely on analysts' reports to anticipate corporate failure in both the case of financial and strategic bankruptcies. Our results also suggest that analysts react asymmetrically to strategic and financial bankruptcies shortly after this event is publicly known.

Keywords: Analysts' reports, financial analysts, strategic bankruptcy, financial bankruptcy

Resumo

A literatura financeira sugere que os analistas financeiros são agentes sofisticados, os quais actuam como facilitadores da eficiência de mercado ao disseminarem e fornecerem informação relevante para o mercado. Este artigo utiliza uma amostra de quatro grandes empresas americanas em situação de falência para verificar em que medida os analistas são capazes de fornecer aos investidores informação relevante para a tomada das suas decisões de investimento. Em particular, é utilizada uma abordagem qualitativa para analisar os relatórios produzidos por analistas de forma a verificar se estes

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agentes são capazes de prever falências estratégicas e falências financeiras antes das mesmas serem publicamente anunciadas. Este artigo avalia igualmente a reacção dos analistas à falência logo após a mesma ter sido decretada. Os resultados demonstram que os investidores não devem confiar nos relatórios dos analistas para antecipar a falência das empresas. Os resultados sugerem também que os analistas financeiros reagem de forma assimétrica às falências estratégicas e financeiras, logo após o evento se tornar de domínio público.

Palavras-Chave: Relatórios dos analistas, analistas financeiros, falência estratégica, falência financeira

1. Introduction

One of the dominant themes in the finance literature since the 1960s has been the concept of an efficient capital market (Elton and Grubber, 1995; Blake, 2001; Lofthouse, 2001). In 1970, Fama presented the classical definition of an efficient market: in such market, prices always reflect all available information.[1] In other words, if markets are efficient, investors cannot use publicly available information to create trading strategies that systematically deliver above equilibrium expected returns. Nowadays, the Efficient Market Hypothesis (EMH) is considered to be the central proposition in finance (Shleifer, 2000).[2]

Finance scholars argue that financial analysts' work contributes to market efficiency (Moyer et al, 1989). Analysts are considered to be sophisticated agents, capable of collecting and analysing complex sources of data in order to devise relevant information (Schipper, 1991). By disclosing this information to the market, analysts provide a valuable input to investors. In fact, it is usual for individual and institutional investors to rely on analysts' information whenever making their portfolio selection or revision decisions (Beckers et al, 2004).

The introduction of the Bankruptcy Reform Act of 1978 changed the way US corporate managers perceive bankruptcy. In fact, by allowing financially solvent firms to seek protection under Chapter 11, this new bankruptcy code transformed bankruptcy into one of the emergent management trends in the US. [3] Using Tavakolian's (1994, 1995)

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[1] According to Blake (2001), there are several levels of economic efficiency. A market is said to be allocatively efficient if the highest bidder for any given (scarce) resource gets to use it. A market is said to be operationally efficient when the transaction costs of operating in that market are determine competitively. Finally, a market is said to be informationally efficient if the current price of any given asset traded in the market instantaneously and fully reflects all relevant available information. A market is said to be perfectly efficient if it is simultaneously allocatively, operationally and informationally efficient (Blake, 2001).

[2] It is worth noticing that recently, behavioural finance has emerged as an alternative theoretical framework to the efficient market hypothesis. This new approach is based on the idea that not all investors are rational and that those that are rational face *limits to arbitrage*. For a recent survey on this domain see Thaler (2005).

[3] This study is based exclusively on US data. The main reason that explains this approach relates to the legal framework within which US firms can file for bankruptcy. To our knowledge, this is the only country in the world

framework, we argue that firms can either file financial or strategic bankruptcies. The fact that the underlying motivations of the two are completely different provides an ideal context within which to test the conventional wisdom that analysts contribute to improve market efficiency.

This paper uses a qualitative approach to explore whether or not analysts are able to anticipate financial and strategic bankruptcies by disclosing related information in their reports before the event is publicly known. We also investigate the analysts' reaction to bankruptcy shortly after it has become effective.

The paper proceeds as follows. Section 2 describes the paper's theoretical framework and rationale. Section 3 presents the methodology. Section 4 discusses the major findings. Section 5 presents the study's limitations. Section 6 concludes.

2. Theoretical Background and Research Rationale

Finance literature has long established that the announcement of a bankruptcy filing is a significant economic event that should be associated with market activity (e.g., Altman, 1969; Dawkins and Bamber, 1998; Rose-Green and Dawkins, 2002). In fact, this event provides material information about the potential reduction of the firm's fundamental value. Even in the most optimistic scenario, a bankrupt firm has to bear both the direct and indirect costs of this situation (Altman, 1984; Opler and Titman, 1995; Meggison, 1997; Gilson et al, 2000 and Grinblatt and Titman, 2002). Moreover, if a reorganization plan is not designed and approved on a timely basis, US courts can force the firm to liquidate, which typically means that current firm shareholders will loose the totality of their investment in the company (Branch, 2002).

Interestingly, existing research has not yet been able to provide clear evidence on whether or not the equity market's reaction to bankruptcy announcements is efficient as defined by Fama (1970). Nowadays, two alternative perspectives about this issue coexist. The first assumes that the market is semi-strong efficient. In this case, no under or overreaction to the bankruptcy event is expected to exist and, consequently, rational investors cannot exploit potential arbitrage opportunities. Altman (1969), Aharony et al (1980) and Clark and Weinstein (1983) are examples of empirical papers that support this perspective. Studies documenting that stock prices only react partially to new information events offer a different possibility (e.g. Ball and Brown, 1968; Bernard and Thomas, 1989; Michaely, et al 1995; Ikenberry and Ramnath, 2002 and Taffler et al, 2004). In this case, the information associated with the bankruptcy announcement should only be partially incorporated into the stock price, creating an investment opportunity for smart investors. The evidence presented in Johnson (1989), Dawkins and Bamber (1998) and Eberhart et al (1999), among others, suggests that the US equity market does not

where financially viable firms can seek protection under the federal bankruptcy law, making it uniquely fit for the development of this research.

efficiently price bankrupt firms' stock, which provides some empirical support to this second perspective.

Traditional microeconomic theory posits that a firm entering bankruptcy will be forced out of business and a more efficient successor will take up the market niche left by the exiting firm (Mas-Collen et al, 1995; Varian, 1999). These models assume that, conditional on existing technology, more productive firms are constantly replacing less productive ones, thereby leading to increased system-wide efficiency (Mas-Collen et al, 1995; Varian, 1999). Despite the elegance of this economic rationale, several scholars suggest that, in the US context, the classical view about bankruptcy is now outdated (e.g. Shrader and Hickman, 1993; Tavakolian, 1994 and 1995; Delaney, 1998; Rose-Green and Dawkins, 2002). The complex US legal system provides the main argument of these academics. Prior to 1978, bankruptcy was only available to financially insolvent firms (Tavakolian, 1995). However, with the adoption of the Bankruptcy Reform Act of 1978, the US legal system abandoned this basic assumption (Delaney, 1998),[4] making it possible for solvent firms to take advantage of bankruptcy in a variety of different situations.

This important modification of the US law had severe repercussions in the country's economy. Probably, the most important one was the complete change of US managers' perception about corporate bankruptcy (Tavakolian, 1995; Delaney, 1998). Traditionally, corporate failure was seen as a stigma, which should be avoided at all costs. The introduction of the Bankruptcy Reform act of 1978 fuelled a major shift in this situation and, during the 1980s, bankruptcy become one of the top ten business trends (Business Week, 20th of January 1986). This change in corporate managers' attitude partially explains the outburst of strategic bankruptcy fillings in the US (Tavakolian, 1994 and 1995; Delaney, 1998 and Rose-Green and Dawkins, 2002). It is important to notice that, once a company files for Chapter 11, the law prohibits all creditors from taking actions against it, pending an approval of a reorganization plan by a bankruptcy court. This gives the company temporary relief from collection attempts, lawsuits and foreclosure procedures (Tavakolian, 1995). Consequently, in the current legal context of the US, financially healthy firms may choose to file a strategic bankruptcy in order to seek protection for itself and its shareholders from the financial risks associated with abnormal events.[5] Theoretically speaking, strategic bankruptcy filings should be accompanied by smaller stock price declines than the financial ones. In fact, firms filling Chapter 11 for financial reasons are more likely to be in distress and therefore to liquidate

[4] One of the most important changes in the new Bankruptcy Code was the broadening of the definition of a claim (Delaney, 1998). The new Code defines claim as "any right to payment, whether or not reduced to judgment, liquidated, unliquidated, fixed, contingent, matured, unmatured, disputed, undisputed, legal, equitable, secured or unsecured". This broad definition allowed corporations to argue their cases in the bankruptcy court in such a manner that was simple not possible until 1978.

[5] Some examples of solvent firms seeking protection under Chapter 11 to save off potential disaster are Wilson Foods and Continental, who argued that they needed protection since high labour costs were making them uncompetitive. Manville and Amatex also sought protection because they were flooded with asbestos lawsuits. For more details and other examples, see Tavakolian (1994 and 1995) and Delaney (1998).

(Rose-Green and Dawkins, 2002), which provides the scenario for a stronger market reaction to the event.

The academic literature suggests that investment analysts play a central role in the way financial markets work. Schipper (1991) characterizes analysts as *"sophisticated agents that collect and analyse data in order to release relevant information to the market"*. There are several reasons justifying the importance of security analysts' research. One of the most important is the evidence that analysts can directly influence markets.[6] Market prices respond to analysts' new buy and sell recommendations and react to changes in their earnings forecasts (e.g., Ho and Harris, 1988; Stickel, 1991; Womack, 1996; Park and Stice, 2000; Barber et al., 2001; Barber et al., 2003; Ryan and Taffler, 2004). Stickel (1991) finds that earning revisions affect prices and their impact is greater when the percentage forecast is in the top or bottom five percent of the distribution of all forecast revisions. In a more recent study, Womack (1996) uses US data to explore the pattern of price and volume alteration motivated by analysts' recommendations changes. He finds significant initial price and volume reaction in the three-day event period around the recommendation changes. These examples demonstrate that analysts' activities provide a flux of relevant information that has market impact, showing their implications in the degree of market efficiency.

However, despite the clear relevance of analysts' opinions to the market, much of the finance literature claims that analyst judgement is biased. Research evidence suggests that analysts are, in fact, not rational in the sense that their forecasts are biased (e.g., De Bondt and Thaler, 1990; Trueman, 1994; Easterwood and Nutt, 1999; Ahmed et al., 2000; Beckers et al., 2004). One of the most important biases observed in these studies is the optimism in analyst forecasts. Two of the most important explanations for the non-rational behaviour of analysts are cognitive-bias explanations and economic incentives-based explanations (Kothari, 2001). Kothari (2001) also presents three other explanations for the analyst-biased behaviour: herding behaviour (e.g., Trueman, 1994; Olsen, 1996), analysts preference to withhold unfavourable forecasts (e.g., McNichols and O'Brien, 1997) and the low earnings prediction (Huberts and Fuller, 1995).

The theoretical framework now presented suggests that it is interesting to explore to what extent analysts are able to distinguish between financial and strategic bankruptcies and whether or not they disclose relevant information about these events to the market. On the other hand, it is also interesting to verify if analysts present a biased behaviour, namely if they are optimistic, even when they are analysing these extreme case of bad news. This paper explores two specific issues related with these questions:

[6] There are other reasons that justify the importance of security analysts' research: Analysts' privileged access to information (Schipper, 1991); analysts possible improvement of market efficiency by providing information to support investor decisions (Moyer et al, 1989); analysts monitoring activity that helps to reduce agency costs between ownership and management (Jansen and Meckling, 1976; Doukas et al., 2000); analysts forecasts have been used as a proxy for market expectations (Schipper, 1991) or the fact that analysts forecasts are used in equity valuation models (Beckers et al., 2004).

1. Are analysts able to predict corporate bankruptcy before it has become effective? Is this situation conditional on the bankruptcy's motivation (financial vs. strategic)?

2. What is the analysts' reaction to corporate bankruptcy? Is this reaction conditional on the bankruptcy's motivation (financial vs. strategic)?

EMH predicts that rational investors should react to news about the fundamental value of any security as they are disclosed to the market. If analysts behave differently according to the firm's motivations for filling for Chapter 11, it becomes reasonable to expect different market reactions to strategic and financial bankruptcies. In this context, a qualitative approach may be used to explore eventual tone differences and asymmetrical behavioural patterns of analyst by analysing the contents of their reports. The next section describes the methodology used in this study to investigate this issue.

3. Methodology

The following points summarize the methodology that was used to address the research questions presented in the previous section.

- *Data*

We started by identifying two sets of different companies: 1) companies that filed for bankruptcy for strategic reasons and 2) companies that filed for bankruptcy for financial reasons. We used the information presented in Delaney (1998) and Rose-Green and Dawkins (2002) to create an initial list of ten companies that filed strategic bankruptcies. After analysing the available information in *Investex Plus*[7] about the ten companies, we decided to include only two of them in our final sample[8] since these were the only ones which had enough information to proceed with the research. On the other hand, we decided to include only two firms[9] in the group of companies that filed financial bankruptcies for convenience reasons. In fact, both of the selected firms were major international players in their own markets before filling for Chapter 11 and therefore information about them is abundant. *Investex Plus* was also used to collect the necessary data for these two firms.[10]

The second stage of the study was to identify the exact date in which each of the selected firms filed for bankruptcy. Analysts' reports were then collect for different time spans: 1) one year before the actual bankruptcy filing; 2) six month before the actual bankruptcy filing;[11] 3) immediately before the bankruptcy filling and 4) immediately after

[7] *Investex Plux* contains analysts' reports from 1982 to 2005, covering global companies and industries with over 3.5 million reports and 5,000 added every week.

[8] The companies are Texaco and Wilson Foods.

[9] The companies are WorldCom and Enron.

[10] A total of forty three reports, released by twenty one different analysts firms, were collected and analysed. This paper only reports the findings of the fifteen most relevant reports.

[11] The mentioned dates are only approximated. Whenever a report is not available in a specific date, the one that is closer to it in a timely fashion is chosen. With the exception of Wilson Foods, all companies have reports available in

bankruptcy filling. Finally, all reports were imported to NVivo, which is a package particularly suited for qualitative research, and coded.

- *Coding*

After reading the selected information, we realised that the best approach for coding the reports was to analyse them in a chronological fashion. By comparing the different reports of the four companies in pre-established time periods, we were able to understand the differences and similarities in the analysts' discourse, points of view and arguments and how these characteristics evolved through time.

Free nodes were used to code the reports since our research rational does not provide any particular framework to do so. We continued adding nodes, going back and forth between reports, until a finite number of nodes were created. Generally speaking, these nodes capture analysts' opinions about the companies and especially the arguments they employ to sustain their ideas. After gathering some experience in performing this task, we realised that two different coding schedules were needed to clarify what analysts were saying in their pre and post bankruptcy reports. As a consequence, we separated our analysis in two levels and coded the reports differently according to whether or not they had been disclosed to the market before the bankruptcy announcement. Finally, we recoded, redefined and reorganized the final nodes in order to build up a clearer picture of the reports' message and the arguments employed by the analysts.

4. Results

This section resumes the outcomes of the analysis. As suggested by the previous section, results are presented according to the reports' timeframe.

4.1 Reports Available One Year Before Firms File for Bankruptcy

The analysis of the reports shows that analysts do not anticipate corporate bankruptcy long before the firm actually files for Chapter 11. In fact, one year before bankruptcy, analysts consider all of the analysed firms as attractive investment opportunities. This pattern is common to both financial and strategic bankruptcies. We present a set of quotes that support our conclusion.

- *Enron*

Salomon Smith and Barney rate Enron as "Buy, High Risk" and write: "We reiterate our 1H (Buy, High Risk) rating on ENE (…). We raise our 2001 EPS estimate to 1.73$ from 1.70m and introduce our 2002 EPS estimate of $2.05".

all dates. In the Wilson Foods case, there is no report available about the company one year and six months before it filed for bankruptcy.

- *WorldCom*

Robertson Stephens rate WorldCom as "Buy", writing that "We are reiterating our Buy rating and $18 price target (…). We continue to believe that the market is underestimating the strategic value of the company (…)".

- *Texaco*

Kidder, Peadody & Company rate Texaco as "Aggressive Buy" and justify their position as follows: *"Assuming that no change in the dividend and an improved oil environment, we* maintain our analyst's rating of 1. (…). Under our price, cost and discount rate *assumptions over the next 20 years, we currently value Texaco net reserves at about $47.00 per share. Moreover, assuming a more "normalized" yield spread of zero basis points indicates a price target of $38 per share".*[12]

These reports also show that, at that time, analysts were very optimistic about the future of all companies. In fact, they use a set of different arguments to explain why investors should expect the companies to prosper in the near future. The following quotes resume the main arguments used by the analysts.

- *Enron*

Firm specific characteristics are used by Salomon Smith and Barney's analysts to explain why investing in Enron was a sound investment for the future: *"Enron's core business, wholesales energy, has posted much better than expected results, and Enron's extensions of that franchise – into retail energy, bandwidth trading, Europe —all show strong performance (…). Looking ahead, we expect Enron to continue to focus on this core franchise (wholesale), and extensions from it, shedding the last remnants of an asset-intensive strategy (…) when this is complete, we will see Enron as having fully substituted intellectual capital for physical capital"*. Their report concludes by saying that *"We view ENE as a core holding in the Power and Natural Gas industry"*.

- *WorldCom*

Robertson Stephens' analysts also rely on firm specific characteristics to argue that WorldCom was an interesting investment for the future: "Despite the slowing economy, the company actually reported a sequential increase in data revenue growth. Data and Internet grew *11% year-over-year and now account for 55% of total revenues". The analysts' team also used the company's financials to justify their optimism: "Worlcom reported a mild increase in EBITDA (…) as expected, due to start-up costs. Nevertheless, EBITDA margins increased by 40 basis points sequentially to 37.8%"*. These analysts reinforce their line of argumentation, saying that *"the company demonstrated an impressive $600 million sequential improvement in free cash flows in the second quarter*

[12] The company's stock was being traded at $26 at the time of the report.

and we expect to improve by $100-$150 million per quarter over the next year. The company's liquidity ratios remain strong".

- *Texaco*

Kidder, Peadody & Company use macroeconomic variables to explain why the company was a sound investment for the future: "The difference between Texaco's yield and 10-year Treasury bonds is (…) around +220 basis points. Under our current interest rate forecast long bonds will rise to 7.8% by the end of 1986. Since (1) we believe oil prices will recover and (2) the ultimate damages, if any, Texaco may be required to pay are under $1 billion, we assume the $3.00 dividend is safe. As a result we expected that, under this circumstance, the company will trade on a normalized future price of $38 per share".

Despite the optimistic tone of all the reports, it is worth noticing that analysts of WorldCom and Texaco mention some minor concerns about these companies' future (that is not the case for Enron).

Robertson Stephens' analysts question WorldCom's operations. They point out that the company had *"unsolved problems in their long distance voice business that have overshadowed the strategic value of the core commercial voice and data business"*. They also show some concern about the company's investment policy and the strong competition it was facing at that time. In fact, in the end of their report and under the title "Investment Risks", Robertson Stephens' analysts write that *"(…) this risks are: 1) successful integration of the Digex acquisition and 2) Competition from ILECS, IXCs and other competitive operators has stabilized but is still very strong"*.

In the first page of their report, Kidder, Peadody & Company's analysts state that *"Over the past several months, Texaco common stock has been battered the $11 billion judgement awarded by the Texas jury in the Pennzoil suit over control of Getty and the collapse in oil prices. Texaco is now viewed by many as a high-risk investment, with the $3.00 per-share common dividend in severe jeopardy. We acknowledge the risk, not as much from the legal situation, as from the unprecedented uncertainty in the international petroleum market."* This quote identifies two sources of risk that, according to the analysts, should be taken into consideration by Texaco's managers at that time: volatility in the oil price and the particular legal situation that Texaco had to deal with.

4.2 Reports Available Six Months Before Firms File for Bankruptcy

Six month before the actual bankruptcy filling analysts continue to disclose to the market strong buy recommendations for Enron, WorldCom and Texaco. The next paragraphs describe the arguments used by the teams to justify their recommendations.

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- *Enron*

Salomon Smith and Barney rate Enron as "Buy, High Risk" and write: *"We reiterate our Buy rating on ENE in face of the recent weakness of the stock, down 44% from 52-week high ($90 on August).We continue to view Enron as the leading Energy Merchant, a position that warrants a premium valuation, in our view. (…) We see ENE's fundamentals remaining intact, and in fact, improving (…)"*. According to these analysts, the sharp stock price decline is irrational in that it does not reflect the deterioration of the company's fundamentals. As a consequence, they suggest that the stock is trading at a discount, and consequently, it should be regarded by investors as an opportunity to earn positive abnormal returns.

- *WorldCom*

Kaufman Bros analysts begin their report on WorldCom by saying that *"Yesterday, we spent time with WorldCom management to get an update on the company's progress in this uncertain environment"*. This document clearly indicates that the analysts were very confidant on WorldCom's momentum, particularly because they believed in the skills and competence of the firm's managers: *"Overall, the meeting was upbeat. For what it is worth, management looked well rested, which could mean that they are no longer playing the role of fire-fighter, and instead better able to focus on generating long-term value. We came away from the meeting confident the company's visibility and we believe the company remains on track to generate positive free cash flow by mid-2002, which should provide an inflection point to WorldCom's financial model and drive the company's shares to a premium valuation"*. Kaufman Bros analysts conclude saying *"We reiterate our STRONG BUY recommendation"*.

- *Texaco*

In line with their previous report, Kidder, Peadody & Company's analysts rate Texaco as "Aggressive Buy". These analysts argue that *"Texaco has effectively outperformed the S&P 500 by 6% over the past month, as international oil market sentiment has turned modestly positive and the stock market has declined. Most international oil companies, and Texaco, are generally considered "low expectation" stocks. Thus any unexpected positive news in the marketplace usually results in capital appreciation. (…) In times of market uncertainty international oil stocks tend to maintain capital for stockholders"*. It follows that, contrary to Enron's case, historical positive performance of Texaco's stock, combined with the increase in oil prices are the major factors that explain why Texaco is considered to be a good investment by the analysts at the time of this report.

Despite the *Buy* recommendation given by the different analysts to Enron, WorldCom and Texaco, they seem somewhat concerned about the short-run future of the firms. This fact is even more relevant if we consider that, six month before analysts were predicting a prosperous long-term future for the same firms. The following examples emphasize this idea.

- *Enron*

Several sources of risk are identified in the report produced by Salomon Smith and Barney's analysts. The first case is labelled as *"India Noise"*. Under this title, they write that *"For the last several months, Enron has been negatively affected by news on their investments in India. (…) Enron is a 65% owner in Dabhol Power, a development consortium in India. The output form their 740 MW plant was contracted to the local state government agency (MSEB) at contractually agreed upon rates. MSEB, late in 2000, stopped payment to Dahbol Power, citing excessive prices"*. Accordingly, one of Enron's strategic investments was being regarded by the market as a *cash guzzler*, negatively affecting the future earning prospects of the company. Salomon Smith and Barney's analysts point out in their report that, at that time, Enron was also being putted under pressure due to market reasons: *"Concerns continue over exposure to California, and he associated headline risk"*. Finally, the report suggests that the market was, at that time, suspicious about Enron's bandwidth trading strategy. Under this headline, the report states that *"(…) some see as negative developments in other segments of Enron's bandwidth efforts (i.e. Blockbuster deal termination in Contend Delivery, redevelopment of employees from their Network group)"*.

It is very interesting to realise that Salomon Smith and Barney's analysts make a considerable effort to present contra-arguments for all the above mentioned questions. In the India affair they write that *"We point out that India remains a small part of Enron's assets base (approximately 4%). While we do feel that the situation is significant and a serious matter in itself, it remains a legacy business and does not materially affect our overall view of the company"*. They also present their understanding of the issue related with the California exposure: *"We do not believe that the electricity markets will be fundamentally re-regulated, although we highlight the potential for headline risk associated with calls for re-regulation. Enron's exposure remains small relative to their peers who have significant generating assets in the state, and our sense is that most of this exposure has been reserved for"*. In terms of the alleged problem with Enron's bandwidth trading strategy, the team of analysts posits that *"We continue to believe strongly in Enron's strategy and see it as a tremendous opportunity to extend their industry-leading risk management skills to the rapidly developing bandwidth commodity market. Enron's core strategy remains the management of price risk for costumers, which is facilitated by their Bandwidth Intermediation Group"*.

- *WorldCom*

Kaufman Bros' report identifies competition as the major source of concern for WorldCom's future: *"Management sees little/no impact form Sprint FON Group, Qwest Communications or other emerging players trying to make inroads in Fortune 100"*. Interestingly, in line with WorldCom's management, Kaufman Bros' analysts seem to undervalue this source of business risk. In fact, they argue that "We believe these companies may not be competitive at the high end of the enterprise market because they lack the full package of network structures, support and legacy as well as next-generation data platforms, which medium and large size enterprises customers are demanding, in our view".

- *Texaco*

In line with their prior report, Kidder, Peadody & Company's analysts point out that oil price volatility and legal issues were the main sources of concern for the future of Texaco: *"The uncertainties of the international petroleum market and the impending Texas Appeals Court decision on the Pennzoil suit are clouding Texaco's future"*. Curiously, these analysts follow the pattern exhibited by their colleagues at Salomon Smith and Barney and Kaufman Bros. In fact, arguing that *"Although we strongly emphasize that the Texaco situation entails some risk, we believe that given an improvement in the international petroleum market and a Pennzoil settlement, if required, of under $1 billion, the $3.00 per share dividend will be maintained. As long as the odds favour dividend maintenance, the stocks warrants an Aggressive Buy rating"*, they minimize the actual relevance of the identified risks and reinforce they assessment of the company's future potential for generating positive abnormal returns.

4.3 Reports Available Immediately Before the Firms File for Bankruptcy

In clear contrast with the dominant tone of the previous reports, the majority of analysts became very sceptical about the future of the companies under analysis just before they formally file for bankruptcy. The only exception to this pattern is Texaco.

- *Enron*

Enron is the most extreme case. Analysts following this company dramatically change their recommendations to the market: two days before filling for bankruptcy, Enron is rated as a SELL stock.13 In a striking report, Commerbank's analysts write that "Enron Corp was downgraded *below investment grade by S&P yesterday from BBB to B-.*

[13] Several reports were produced by different analysts just before Enron was forced to file for bankruptcy. All these documents point to the same conclusion: at that moment, investors should close their positions on the stock, given the high risk that it entailed. I choose to analyse in depth the report by Commerzbank because it was the clearest one about why that should be the dominant investment strategy for Enron's investors.

This downgrade will trigger about $3.3 billion in liabilities related to two of Enron's off-balance-sheet financing vehicles, which must be paid immediately. We do not believe it is likely that Enron will be able to raise the capital to settle these claims and continue to operate its business. Moreover, we believe that junk bond status will effectively shut down the bulk of operations in Enron's trading and marketing business as counterparties will not be willing to accept Enron's credit. Yesterday, we downgraded Enron to SELL from Hold". This report clearly shows that these group of analysts believed that Enron's future financial solvency was by no means ensured and, between the lines, it can be read that bankruptcy was seem by them as the only available choice for the company. Enron filed for Chapter 11 two days later.

- *WorldCom*

WorldCom's situation is different from the previous one. In this case, the best available report in *Investex Plus* was disclosed to the market in the 21st of March 2002. Given that WorldCom filed for bankruptcy in the 21st of July 2002, a lag of almost three months exists between the bankruptcy event and the date of the report. Bearing this in mind, it is interesting to notice that Salomon Smith and Barney's analysts modify their recommendation on the company's stock from *Buy* to *Neutral* at this point in time. Financial reasons justify this action: *"We are downgrading WorldCom to a 3H, Neutral high risk, from a 1H, Buy High risk. The reason for the downgrade is that WCOM significantly lowered its EBITDA guidance Friday night after close. The change in guidance (…) is too much to ignore. We are also lowering our price target to $5 per share from $10 per share"*.

In the most astonishing part of the report, Salomon Smith and Barney's analysts actually write *"Clearly, we have been wrong on the stock. In retrospect the depth and length of the decline in enterprise spending has been stronger and more damaging to WCOM than we even anticipated. This, on top of continuing industry issues regarding overcapacity, competitive structure, etc, ended up having more of a negative impact to WCOM's financial performance than we forecasted"*. The report continues with the team of analysts expressing their concerns with the company's financial future. They argue that *"the change in EBITDA guidance is likely to put downgrade pressure on WorldCom's credit ratings, which would increase its cost of debt and could cause the banks to seek stricter covenants in the future."*

It is clear from the report that analysts' perception about WorldCom changed comfortably before the company was forced to file for bankruptcy, providing a reasonable amount of time for investors to adjust their portfolios.[14]

[14] This situation did not happen with Enron. In fact, I analysed the Enron's reports that were available in *Investex Plus* three month before the company filed for Chapter 11 (not reported). Interestingly, all of them rated Enron as a "Strong Buy" and none suggested that the firm could face financial problems in the near future.

- *Texaco*

In 27th of March 1987, Knuettel's analysts raise Texaco's long-term rating to *"Aggressive Purchase"*. They justify this action based on their predicted settlement of the Pennzoil case: *"We are raising our long-term rating on Texaco, not because there has been any change in our thinking on the value of the company, but largely because we are increasingly convinced that the company will eventually be able to overturn most of the $10.25 Billion judgement the Texas court awarded Pennzoil"*. The three page report continues debating the possible scenarios of the ongoing legal battle and analysts conclude that, in the majority of the cases, Texaco's future would always be guaranteed. However, in the last part of the report, Knuettel's analysts do recognize that there was a remote possibility of Texaco filing for bankruptcy: *"An affirmation of a $10.25 billion, which Texaco claims violates due process, would result in drastic consequences, up to including a bankruptcy filling by Texaco"*. However, they minimize the importance of this situation, characterizing it as *"remote and highly unlike to happen"*. In 12th of April 1987 Texaco filed for Chapter 11 in order to avoid paying the $10.53 billion awarded to Pennzoil.

- *Wilson Foods*

In line with the colleagues that followed Enron and WorldCom, Donalson, Lufkin & Jenrette Securities Corporation's analysts lowered their expectations about Wilson Food's future just before the company filed for Chapter 11. Two main reasons are presented by these analysts to explain why they decided to *"remove Wilson Food's shares from the DLJ Recommended List of shares"*. The first is related with problems concerning market conditions, particularly the existence of insufficient supply of firm's inputs: *"(…) it now appears that in 1983 corn production will approximate 6 billion bushels, down about 30%. Consequently, we expect corn prices, which have risen about 60% since last fall, to remain relatively high"*. The second reason is related with competition and labour prices. According to Donalson, Lufkin & Jenrette Securities Corporation's analysts *"Swift Independent may provide more lower-cost competition for Wilson. Recently Swift announced that it planned to acquire three pork plants from Armour. Swift will operate them with lower-cost, non-union employees. The plants have an annual capacity of 3.5 million head and will boost Swift's total output to over 9 million head, second only to Wilson at about 11 million"*.

Despite the concern with the competitive structure within which Wilson Foods operated at the time of the report, Donalson, Lufkin & Jenrette Securities Corporation's analysts did not clearly state that the company could face severe problems in the near future. Two weeks latter, Wilson Foods filed for Chapter 11.

4.4 Reports Available Immediately After the Firms File for Bankruptcy

The analysis of the reports that are available immediately after the firms file for bankruptcy show that analysts' behaviour is conditional on the reason why the firm has filed for Chapter 11. Analysts stop following the companies that go bankrupt for financial reasons, while they continue with their normal coverage of the remaining ones. The following paragraphs provide further detail on this asymmetrical behaviour of analysts in face of corporate bankruptcy.

- *Enron and WorldCom*

Typically the reports that follow Enron's and WorldCom's bankruptcy inform the market that the analysts' firm is going to stop covering the companies. The following examples illustrate this behavioural pattern:

1. Credit Lyonnais Securities Inc. disclosed a report informing that *"Credit Lyonnais Securities Inc. is discontinuing coverage of WorldCom Group and withdrawing all related estimates and ratings"* one day after the company had field for bankruptcy;
2. Credit Suisse Equity research suspended Enron's coverage two months after the firm filed of Chapter 11. This report informs that *"Credit Suisse, Equity Research is dropping coverage of ENRNQ. This action formally reflects that we have not had active coverage of ENRNQ in light of its status in bankruptcy, its "de-listing", uncertainties cause by internal and external reviews, investigations and audits, and the lack of financial guidance from the company"*.

The only available report for this set of companies that does not follow the previous pattern, concerns Enron and is disclosed by Commerzbank, two days after the bankruptcy filling. The tone of the report becomes clear right on its first sentence: *"Enron files for Chapter 11: reorganization and Dynergy lawsuit unlikely to be successful"*. A two page document explains why the analysts at Commerzbank think that Enron will not be able to come out from Chapter 11 as a profitable firm. Their main argument is summarized in the following paragraph: *"Enron is striving to restart its energy trading and marketing business by joining forces with a financial institution that will shore up its finances and credits. We believe it is unlikely that Enron can successfully restart this business. Enron has also launched a lawsuit against Dynergy for at least $10 billion alleging that Dynergy wrongfully terminated its bid to buy Enron. We believe the lawsuit is unlikely to successful. We reiterate our SELL rating on Enron"*.

In short, two days after Enron had field for bankruptcy, analysts at Commerzbank foresaw the actual future of the firm: a long and expensive legal process that granted no hope for those investors wanting to use the company to earn positive abnormal returns.

- *Texaco and Wilson Foods*

There is a significant difference between the behavioural pattern of the analysts that followed Enron and WorldCom and those that covered Texaco and Wilson Foods. In fact, the later continue to provide a considerable amount of relevant information to the market about the set of companies that file strategic bankruptcies. In this case, reports share one core message: Texaco and Wilson Foods are sound future investments for those that are patient enough to wait until the companies emerge from bankruptcy. The following quotes justify this conclusion.

1) Fisher Corporation's analysts write about Texaco that *"Risk-taking accounts should hold on to or establish positions, provided they are prepared to be patient. If settlement comes quickly, Texaco common would rebound sharply in our judgement";*
2) William Leach's analysts argue that *"(…) if Wilson is able to reduce the wages of its hourly employees to, say, $10 an hour, that would result in an annual cost saving of an astounding $100 million, or about $9.00 per share after tax. As of this writing, we have no idea exactly what the magnitude of the savings will be. The potential, however, is clearly enormous". In the end of the report it can also be read that "We still believe that Wilson will benefit from an increase in the supply of hogs in its fiscal 1984 year and return to profitability even without wage concessions. (…) If Wilson shares resume trading at much lower levels, we believe that this could prove to be an excellent buying opportunity for speculative investors".*

It is also interesting to notice that both reports offer detailed information about the reasons that conducted to the bankruptcy filling and emphasise that none of the companies was in financial distress at the time of the event. Fischer Corp's analysts start their report arguing that *"Texaco's defensive filing under Chapter 11 means the immediate suspension of dividends and debt service, immediate protection from Pennzoil and the Texas courts on the lien and security bond issues, and heightened pressure on Pennzoil to reach an early settlement with Texaco"*. They continue concluding that *"Texaco need no longer fear death by inches or the invidious undermining of confidence in its creditworthiness"*. Wilson Foods' report is even clearer. William Leach's analysts write that *"in a surprise move, Wilson Foods filed for reorganization under Chapter 11. It appears, however, that this is strictly a means to break their unfavourable labour contracts and is, consequently a positive long-term development. The company is by no means insolvent"*.

Bottom line, the difference between the reports of Texaco and Wilson Foods and Enron and WorldCom is striking. In the first case, analysts seem confident about the companies' future and reflect that conviction in their reports. Moreover, risk-tolerant investors are advised to buy the stock of the bankrupt companies, since they can rightfully expect positive abnormal returns from this investment strategy in the future. In the later case, analysts are able to forecast that the bankruptcy process is going to be long and expensive. They wisely advise investors to sell the stock of these companies in order to minimize their losses and improve their long-term average returns.

4.5 Summary and Discussion of the Results

The following points summarize the major findings of this study.

1. Analysts are not able to predict corporate bankruptcy long time before it becomes effective. The results from the first set of analysts' reports show that these market participants enthusiastically recommend the purchase of shares of companies that will go bankrupt in one year time. This conclusion is not conditional on the bankruptcy's motivation;
2. One year before the actually bankruptcy filling, analysts are confidant about the companies' future. They use a mix of macroeconomic factors, industry specific phenomena and firm specific characteristics to explain their optimism;
3. Six month before the bankruptcy event, analysts remain confidant about the performance of the companies' stock. Once again, this conclusion is not conditional on the bankruptcy's motivation;
4. In the same period, analysts became more suspicious about the firms' short-term future. At this point in time, analysts recognize that the companies under analysis face risks that may endanger their future capacity to increase shareholder value. However, in an indirect way, it is possible to understand that analysts undervalue the importance of such risks;
5. Reports produced around the bankruptcy announcement date show a clear shift in the analysts' perception about the future viability of the firms under analysis. In this case, analysts' reaction is, to some extent, conditional on the type of bankruptcy. In the case of financial bankruptcies, analysts are fully aware of what is going to happen to the companies and typically disclose a sell recommendation to the market. Conversely, analysts that follow firms that file strategic bankruptcies find it difficult to understand the particular situation in which such companies are: in one case they disclose a buy recommendation and in the other they fail to make any consideration about the future event;
6. Results show that the analysts' reaction to the bankruptcy event is conditional on its motivation. In the case of the financial bankruptcies, analysts stop following the companies, given a clear sign to the market that they do not believe that the firms will be able to successfully emerge from Chapter 11. However, when the firm files a strategic bankruptcy, analysts continue to provide relevant information to the market. In particular, they disclose detailed information about the reasons that forced the company into that situation and highlight the fact that the companies were not financially insolvent. Moreover, analysts agree that the analysed companies are excellent investment opportunities for risk-tolerant investors.

The information collected through the development of this study provides some insight about the answers to the research questions presented in section 2.

1. Points 1 to 4 suggest that analysts do not have a high degree of insight about the future of the companies. In this case, the motivation for corporate bankruptcy does not seem to be an important fact. This finding contradicts traditional finance theory, which argues that analysts should be able to forecast important economic events with a high degree of precision and anticipation since they have access to a wide range of information sources and have superior capabilities of analysis;
2. Point 5 suggests that, as we approach the bankruptcy date, analysts become more accurate in their predictions about the companies' future. This is particularly true for those companies that file financial bankruptcies. To some extent, this was an expected result: 1) as the event date approaches, analysts are able to gather more detailed information about the company; 2) analysts' fundamental analysis is more suited for uncovering firms' financial problems than to understand its strategic motivations;
3. Point 6 clearly suggests that analysts do react to corporate bankruptcy and that such reaction is conditional on the motivations of the actual filling. Results show that analysts have a high degree of insight about the future of the financially insolvent companies since they stop following them.[15] Moreover, results indicate that analysts have the opposite procedure with the companies that file strategic bankruptcies, continuing to disclose relevant information about them to the market.[16]

Bottom line, results suggest that analysts do not increase the level of information to support investors' decisions before the bankruptcy is publicly known. Consequently, investors should not rely exclusively on analysts' reports to predict this event up to twelve months before it has become effective. Moreover, this study indicates that analysts react differently to corporate bankruptcy depending on the firms' motivations for the filling. Despite the relevance of these results and conclusions, it must be emphasized that they are only valid within the limitations of the study, which are discussed in the following section.

15 According to Grinblatt and Titman (2002), the majority of these companies end up liquidated, not having the possibility to emerge from Chapter 11.

16 Eberhart et al (1999) suggest that, two years after the initial bankruptcy filling, a high percentage of these companies emerge from Chapter 11 in a good financial position.

5. Limitations of the Study

This study presents some important limitations that must be taken into consideration. The following list resumes the main issues related with this subject.

1. None of the companies included in the study was randomly selected: some were selected due to information limitations (the strategic set) and some were selected for convenience reasons (the financial set). This fact raises *"sample fishing"* issues that reduce the robustness of the results (Savaje, 1972; Wonnacott and Wonnacott, 1990 and Newbold et al, 2003);
2. Only two firms are considered in each of the analysed groups. Silverman (1997) and Denzin and Lincoln (2000) recommend that a qualitative study should encompass at least 20 observations. In order to improve the quality and robustness of the results, further research should use a higher number of observations;
3. We tried to minimize the bias introduced by the source documents by using only one firm of analysts per company included in the study. However, due to information constraints, this was not possible to achieve and therefore some *fundamental bias* is expected to exist;
4. The coding of each report is inevitably subjective, introducing possible researcher interpretation bias;
5. The issue mentioned in the previous point is even more relevant since coding was done without a precise framework. As a consequence, the final coding schedule is highly dependent of the research's thought processes.

6. Conclusion

This paper uses a qualitative approach to explore if analysts are able to disclose information to the market that provides investors with material information for their investment decisions in the context of corporate bankruptcy.

The study's results show that analysts are only able to anticipate bankruptcy around the actual filling date. In fact, in a time frame that spans between six month and one year before that date, analysts' reports encourage investors to take long positions on the stock of companies that will go bankrupt in the short-run. This situation is common to both strategic and financial bankruptcies. This scenario changes dramatically in the few days that precede the bankruptcy filling. In fact, analysts are then able to predict with a high degree of accuracy financial bankruptcy fillings and disclose that information to the market in their reports. In this case, analysts act as facilitators of market efficiency since they release valuable information to investors that otherwise they would ignore in their investment decisions. Our results also suggest that analysts behave differently in the case of strategic bankruptcies. In some cases, analysts simply do not realise that the company may file for Chapter 11 and reinforce their buy recommendations. In the remaining cases, analysts acknowledge that the company may file for bankruptcy but minimize the importance of such scenario.

Analysts' behavioural pattern is even more asymmetrical after the bankruptcy filling. In fact, these market participants typically stop following the companies that file financial bankruptcies while they continue disclosing relevant information to the market about the remaining firms. In the case of the two strategic bankruptcies explored in this study, analysts express their confidence about the future of such companies, and label them as good investment assets for risk-tolerant investors.

In short, our findings suggest that financial analysts are able to anticipate bankruptcy only a few days before it becomes effective and that the nature of their reaction to this event is conditional on the reason that motivates the bankruptcy filling (financial/strategic reasons)

Reference List

Aharony, J., Jones, C., & Swary, I., 1980, An Analysis of Risk and Return Characteristics of Corporate Bankruptcy Using Capital Market Data, Journal of Finance, 35, 1001-1016.

Ahmed, A., Lobo, G., & Zhang, X., 2000, Do Analysts Under-react to Bad News and Over-react to Good News?, Syracuse University and University of Chicago, Working Paper.

Altman, E., 1969, Bankruptcy Firms' Equity Securities as an Investment Alternative, Financial Analysts Journal, 129-133.

Altman, E., 1984, A Further Empirical Investigation of the Bankruptcy Cost Question, Journal of Finance, 39, 1067-1089.

Ball, R., & Brown, P., 1968, An Empirical Evaluation of Accounting Income Numbers, Journal of Accounting Research, 6, 159-167.

Barber, B., Lehavy, R., McNichols, M., & Trueman, B, 2001, Can investors profit from the prophets? Security analyst recommendations and stock returns, Journal of Finance, 56, 531-563

Barber, B., Lehavy, R., McNichols, M., & Trueman, B, 2003, Reassessing the returns to analysts' stock recommendations, Financial Analysts Journal, 59, 88-96

Beckers, S., Steliaros, M., & Thomson, A., 2004, Bias in European Analysts' Earnings Forecast, Financial Analysts Journal, 60, 74-85

Bernard, V., & Thomas, J., 1989, Post-Earnings Announcement Drif: Delayed Price Response or Risk Premium?, Journal of Accounting Research, 27 (supplement), 1-48.

10. Blake, D. 2001, Financial Market Analysis (2nd ed.). New York, John Wiley and Sons.

Blay, A., & Geiger, M., 2001, Market Expectations for First-time Going-concern Recipients, Journal of Accounting, Auditing & Finance, 16, 209.

Branch, B., 2002, The Costs of Bankruptcy: A Review, International Review of Financial Analysis, 11, 39-57.

Clark, T., & Weinstein, M., 1983, The Behaviour of the Common Stock of Bankrupt Firms, The Journal of Finance, 38, 489-504.

Dawkins, M., & Bamber, L., 1998, Does the Medium Matter? The Relations Among

Bankruptcy Petition Filings, Broadtape Disclosure, and the Timing of Price Relations, The Journal of Finance, 53, 1149-1164.

De Bondt, W. , & Thaler, R., 1990, Do Security Analysis Overreact? The American Economic Review, 80, 52-57.

Delaney, K. 1998, How Corporations and Creditors Use Chapter 11 Bankruptcy to Their Advantage, Berkeley and Los Angeles, University of California Press.

Denzin, N., & Lincoln, Y. (Editors.). 2000, Handbook of Qualitative Research (2nd ed.). London, Sage.

Easterwood, J., & Nutt, S., 1999, Inefficiency in Analysts' Earnings Forecasts: Systematic Misreaction or Systematic Pptimism? Journal of Finance, 54, 1777-1797.

Eberhart, A., Altman, E., & Aggarwal, R., 1999, The Equity Performance of Firms Emerging from Bankruptcy, Journal of Finance, 54, 1855-1868.

Elton, E., & Gruber, M. 1995, Modern Portfolio Theory and Investment Analysis (5th ed.). New York, John Wiley and Sons.

Gilson, S., Hotchkiss, E., & Ruback, R., 2000, Valuation of Bankrupt Firms, The Review of Financial Studies, 13, 43-74.

Grinblatt, M., & Titman, S. 2002, Financial Markets and Corporate Strategy (2nd ed.). New York, McGraw-Hill Higher Education.

Ho, M., & Harris, R., 1988, Market Reactions to Messages from Brokerage Ratings Systems, Financial Analysts Journal, 54, 49-57

Huberts, L., & Fuller, R., 1995, Predictability Bias in the U.S. Equity Market, Financial Analysts Journal, 51, 12-28.

Ikenberry, D., & Ramnath, S., 2002, Undereaction to Self-Selected News Events: The Case of Stock Splits, The Review of Financial Studies, 15, 489-526.

Johnson, D., 1989, The Risk Behaviour of Equity of Firms Approaching Bankruptcy, The Journal of Financial Research, 12, 33-50.

Kothari, S., 2001, Capital Markets Research in Accounting, Journal of Accounting & Economics, 31, 105-231.

Lofthouse, S. 2001, Investment Management (2nd ed.). New York, John Wiley and Sons.

Mas-Colell, A., Whinston, M., & Green, J. 1995, Microeconomic Theory, New York, Oxford University Press.

McNichols, M., O'Brien, P., & Francis, J., 1997, Self-selection and Analyst Coverage, Journal of Accounting Research, 35, 167-199.

Meggison, W. 1997, Corporate Finance Theory, New York, Addison-Wesley.

Michaely, R., Thaler, R., & Womack, K., 1995, Price Reactions to Dividend Initiations and Omissions: Overreaction or Drift?, Journal of Finance, 50, 573-608.

Moyer, R., Chatfield, R., & Sisneros, P., 1989, Security Analyst Monitoring Activity: Agency Costs and Information Demands, Journal of Financial and Quantitative Analysis, 24, 503-512

Newbold, P., Carlson, W., & Thorne, B. 2003, Statistics for Business and Economics (5th ed.). New Jersey, Prentice Hall.

Olsen, R., 1996, Implications of Herding Behavior for Earnings Estimation, Risk Assessment, and Stock Returns, Financial Analysts Journal, 52, 37-41.

Opler, T., & Titman, S., 1994, Financial Distress and Corporate Performance, Journal of Finance, 49, 1015-1040.

Park, C., & Stice, E., 2000, Analyst Forecasting Ability and the Stock Price Reaction to Forecast Revisions, Review of Accounting Studies, 5, 259-272

Rose-Green, E., & Dawkins, M., 2002, Strategic Bankruptcies and Price Reactions to Bankruptcy Filings, Journal of Business Finance & Accounting, 29, 1319-1335.

Ryan, P., & Taffler, R., 2004, Do brokerage Houses Add Value? The Market Impact of UK Sell-Side Analyst Recommendation Changes, Cranfield University, Working Paper.

Savaje, L. 1972, The Foundations of Statistics (2nd ed.), New York, Dover Publications.

Schipper, K., 1991, Analysts' forecasts, Accounting Horizons, 5, 105-121.

Shleifer, A. 2000, Inefficient Markets, An Introduction to Behavioral Finance, New York, Oxford University.

Shrader, M., & Hickman, K., 1993, Economic Issues in Bankruptcy and Reorganization, Journal of Applied Business Research, 9, 110-120.

Silverman, D. (Editor.). 1997, Qualitative Research: Theory, Method and Practice, London, Sage.

Stickel, S., 1991, Common Stock Returns Surrounding Earnings Forecast Revisions: More Puzzling Evidence, The Accounting Review, 66, 402-416.

Taffler, R., Lu, J., & Kausar, A., 2004, In Denial? Stock Market Underreaction to Going Concern Audit Report Disclosures, Journal of Accounting and Economics, 38, 263-283.

Tavakolian, H., 1994, Bankruptcy: An Emerging Financial Strategy, Management Research News, 17, 51-61.

Tavakolian, H., 1995, Bankruptcy: An Emerging Corporate Strategy, S.A.M. Advanced Management Journal, 60, 18-22.

Thaler, R. (Editor.). 2005, Advances in Behavioral Finance, Volume II, New York, Russel Sage Foundation.

Trueman, B., 1994, Analyst Forecasts and Herding Behavior, The Review of Financial Studies, 7, 97-124.

Varian, H. 1999, Intermediate Microeconomics - A Modern Approach (5th ed.), New York, Norton & Company.

Womack, K., 1996, Do Brokerage Analyst's Recommendations Have Investment Value?, Journal of Finance, 51, 137-167.

Wonnacott, T., & Wonnacott, R. 1990, Introductory Statistics (5th ed.), New York, John Willey and Sons.