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Analyst consensus in the Eurozone stock markets ☆

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ABSTRACT

The goal of this article is to specify the role of financial analysts' consensus in stock markets, specifically, the *Eurostoxx* Market, from January 2002 to December 2009. Financial analysts issue reports about companies quoted on the stock market. For each company and for a given time period, each report contains an estimate of its future earnings per share and dividends, its target price for the next twelve months and an investment recommendation such as 'buy', 'sell', or 'hold'. Some firms collect these reports to calculate financial analysts' consensus estimates. This article concludes that financial analysts' consensus perform several functions: announcing in advance unexpected price changes ('surprises') through the target price, confirming previous estimations through revisions, and reflecting analysts' convictions through the interpretation of their estimates. This role is modest but statistically significant in this market.

1. Introduction

Financial analysts have been criticized for several reasons, especially in times of stock market and financial crisis: optimism bias in their estimates, weakened objectivity due to conflicts of interest, unrealistic target prices and passive monitoring of the market.

Despite these criticisms, the estimates of analysts are still used by many market participants, while financial data companies produce analyst consensus forecasts principally for investors. The consensus forecast is an average (i.e., median, in the case of the consensus provided by *FactSet*). It is assumed that the information value of the consensus forecast is known by all market participants and should already be incorporated into the security market price. If this is the case, then consensus does not affect the stock market price according to the Efficient Market Hypothesis and is information which will be of no value to the participants, supporting criticisms of analysts' reports.

This article demonstrates that information in the consensus forecast is still useful for market participants even after 100 days, though the influence of this information is modest. To demonstrate this, three components of analysts' reports are analyzed: estimated earnings, target prices and recommendations. Once the

influence and informational content of these components have been assessed, a definition of the role of consensus among financial analysts is proposed.

The first section reviews previous research on financial analysts. The second section describes the sample that is the basis for the empirical analysis. The third section presents our research design and describes the models employed. The fourth section discusses the development and results of these models. In the fifth section, the role of analyst consensus is inferred from our models. The final section discusses the results of this research.

2. The influence of analysts in the financial literature

A financial analyst's primary task is to scrutinize the financial condition of a company, assessing such characteristics as profitability, liquidity, and risk. This assessment is then presented in a report that contains earnings estimates, a target price that the analyst predicts the company's share price will attain within the next twelve months and a recommendation to investors to buy, sell or hold securities in the company.

Financial analysts may work in brokerage and securities companies that offer advisory and management services for the buying and selling of securities (sell-side analysts), in large investment institutions such as mutual funds or insurance companies (buy-side analysts) or as external professionals who advise several companies (independent analysts).

Given the internal use of buy-side analysts' reports, this article will focus on both sell-side and independent analysts. Among these

analysts, the article will focus on securities analysts and their role in the stock markets.

Three articles in recent decades have collected the results of academic research on financial analysts' estimates and their influence on capital markets (Schipper, 1991; Brown, 1993; Ramnath et al., 2008). In these articles, it is clear that most research into the influence of analysts in the markets focuses on one of the three main components of analysts' reports, i.e., earnings estimates, target prices or recommendations.

Regarding earnings estimates, the financial literature has shown that such estimates are superior to the predictions of time series models (Fried and Givoly, 1982; Brown et al., 1987; Wiedman, 1996). However, the information content has been found to lie in *revisions* of analysts' earnings estimates of analysts rather than in the estimates themselves (Gleason and Lee, 2003; Aiolfi et al., 2010).

With respect to target prices, some studies show that they have more information content than recommendations, as target price is a more refined measure of company value (Da et al., 2008). Target prices have information value mainly in their revisions, although they have only a modest effect on yields if transaction costs are included (Barber et al., 2001; Brav and Lehavy, 2003).

As regards recommendations, the financial literature has shown that *revisions* in recommendations provide more information value than the *level* of recommendations (Stickel, 1995; Womack, 1996; Barber et al., 2001; Jegadeesh et al., 2004; Wang, 2012), although there is no agreement about the sign of revisions that offers the greatest information value.

While many studies have focused on revisions of each of the three components of analysts' reports separately, studies that jointly investigate revisions of all three components are scarce. Those studies that exist have focused mainly on the *additional* information content provided by revisions of each component together with the other two. In addition, they focus on the *complementary* information content provided by the combination of the revisions of two of the three components (Francis and Soffer, 1997; Brav and Lehavy, 2003) or of all three components (Asquith et al., 2005; Feldman et al., 2012).

2.1. The analyst consensus

The studies cited above show the influence of analysts, viewed as individuals, in particular markets. Few studies have examined the influence of analysts when they are considered as a consensus in a given market.

Analyst consensus has generally been used in the financial literature as a benchmark to highlight the performance of a single analyst against the average performance of a group of analysts (Cooper et al., 2001; Frankel et al., 2006). The consensus then allows the investor to form an opinion about a specific analyst (Park and Stice, 2000; Hong et al., 2000; Jegadeesh and Kim, 2010).

Previous research on the influence of analyst consensus has shown that revisions in consensus recommendations have a modest impact on capital markets. If transaction costs are taken into account, then revisions of consensus recommendations do not help investors achieve additional returns (Jegadeesh et al., 2004). What, then, is the use of an analyst consensus? To date the financial literature has not answered this question.

The aim of this paper is to identify the utility of analyst consensus by analyzing its content and influence in a specific market, jointly considering revisions of the three components of analysts' reports. Our goal is to define the role of financial consensus in financial markets.

In this article, the consensus analysts' forecast provided by Fact-Set for a particular month is defined as the median of the broker forecasts made in the last 100 days prior to the end of that month.

This method uses the latest techniques for consensus (Wieland, 2011; Jegadeesh and Kim, 2010).

3. Sample description

3.1. Market

Data sample is obtained from quoted companies listed in the Eurostoxx index. This index, created by Stoxx Limited, is a broad and liquid subset from the STOXX Europe 600 index. With a variable number of components, it represents the companies with a large, medium and small capitalization from the 12 Eurozone countries. The Eurozone has received special attention during over recent years, amongst other reasons because of the high level of volatility in financial markets, markets which affect other emerging economies as well as other developed economies.

FactSet collects data from brokers on a voluntary basis, so there is potential for selection bias. This bias cannot be eliminated, as a company may not be followed either by analysts who collaborate with *FactSet* or by analysts in general. The selection of companies has been carried out according to the availability of data for the whole period.
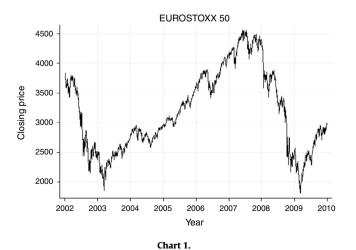
3.2. Period and frequency

The sample period is set according to the availability of data from the *FactSet* database. The objective is to obtain the largest possible number of variables for the largest possible number of companies in each market and for the longest possible time period. The sample period is set to obtain the maximum number of observations possible and to ensure that the sample is balanced.

The period analyzed runs for 96 months from January 2002 until December 2009. The period starts with the recovery from the stock market crisis caused by the bursting of the *dot.com* bubble and ends with the financial crisis that began in 2007 but whose greatest impact would not begin until 2008 and would continue into 2009. For this reason, the period has two sub-periods: the pre-crisis stage (2002–2007) and the crisis stage (2008–2009), as seen in the behavior of the EUROSTOXX-50 index, shown in Chart 1.

This division makes empirical analysis necessary both for the whole period and for each of the sub-periods. As it was a chain of events that led to the financial crisis, it is difficult to delimit the sub-periods; thus, delimitation was achieved by purely statistical means. Specifically, volatility was assessed and submitted to a Chow test to determine structural stability, as noted above.

Regarding data frequency, in most previous research, *event time* rather than *calendar time* has generally been used as a time

Chart 1.