Analiza tehnică versus Analiza fundamentală a companiilor din Romania ce au ca domeniu de activitate fabricarea substanțelor şi produselor chimice.

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Resume

Abstract

The purpose of this paper is to investigate several technical indicators which can be useful for investors in making decisions and to investigate the underlying factors that have a significant impact on the price movement of a stock. Providing aid to investors is very important because with the capital that they invest in the stock market, an economy can increase or may recover when passing through an economic crisis.

Introduction

I conducted this study because currently there are many materials available for investors to learn to trade on the stock market, but the character of the market of reacting to any new information or to the rumors, makes it impossible to take the right decision to invest and an investor may discover the next day that he lost all resources. If in the past it could take advantage of the delayed emergence of information and investors who had relations in other areas of the world could take advantage of this gap, in the present the information travels very fast and the share price is affected immediately and therefore is necessary to conduct a thorough analysis of the evolution prices of the factors that have an impact on them.

I conducted this study with the intention of discovering whether an investor can trade on the stock market knowing only one type of analysis, technical or fundamental, to discover if technical analysis's signals are always accurate and is not necessary to study fundamental analysis for investing in a company, or fundamental analysis is sufficient in the investment decision.

The paper is structured in three chapters, the first chapter refers to the theories underlying the two analyzes, the second chapter presents empirical studies and in chapter three represents the case study conducted on the five companies analyzed.

Literature Review

Investors in stock markets are interested primarily to sell shares at a much higher price than the price they purchased it, and secondly are interested to receive dividends for the period in which they hold shares. They want to get a higher amount of investment in shares, compared with the amount of money they receive if they place the money in a bank deposit or invest in bonds. Identification price action behavior is a big challenge for both investors and academics. This behavior is studied by means of two components namely technical analysis and fundamental analysis. In estimating future prices of securities market were formulated many theories over the years, as described below.

Professor Eugene Fama in 1970 published the paper "Efficient Capital Markets" Efficient Market Hypothesis called the first theory, a theory that highlights the price of a security reflects all available information and everyone has a certain accessibility to them. The Efficient Market Hypothesis price of a security is the reflection of complete information on the market, which means that whenever financial changes occur, the market price of the security will instantly adjust to reflect the new information. This shows that you can not make estimates regarding future price value.

Random walk represents the fact that the next steps, and future directions can not be estimated based on past actions. The concept that profits from stock price follows a random motion was first suggested by Louis Bachelier in his "The Theory of speculation '(1900,1906,1913), commenting that" speculators are zero mathematical expectations. "In 1937 Econometrica article Alfred Cowles and Herbert E Jones assumed that prices of capital markets exhibited randomness. These two major theories underlying the development of two different philosophies regarding the financial instruments analysis ie that technical analysis fundamental analysis.

Technical analysis is a method of evaluating securities by analyzing statistics generated by the real estate market and prices quoted by the volume. This focus on share price behavior over time and try to estimate what will be the future price based on this information.

The principles of technical analysis derive from the theory of The Dow Theory. This theory was proposed by Charles Dow, founder of Dow Jones and Company which published Wall Street Journal. In 1900 he wrote several articles that made reference to how the Dow Jones Industrial Average and Dow Jones Transportation Index moved. Analyzing these indices revealed his idea that markets tend to move in the same way over time. According to Charles Dow "It is considered that the market always has three movements, all operating simultaneously. The first movement is limited by one day to the next, second is running short movement from two weeks to a month or more, and a third main movement is the movement of no less than 4 years. The theory argues that market behavior is 90% psychological and 10% logical.

Ralph Nelson Elliot Elliot Wave theory developed in the late 1920s, he discovered that although stock markets behave in a chaotic manner, actually they are traded in repetitive cycles due to investor reactions to external influences or predominant psychology of the crowd at the same time. He found that the upward and downward swings of crowd psychology have always the same repetitive patterns, which he has called waves. Elliot made detailed predictions based on the unique features found in the patterns of waves. The theory states that any market share follows a repetitive rhythm of five waves that trend going towards principal, and three waves makes a correction to the main trend. 1,3,5 waves in the wave that follows the main trend are impulsive waves and corrective waves are waves 2.4. For a graphic Elliot waves can be found several conditions must be met: a corrective wave 2 is no greater than 100% of wave 1, wave 3 can not be the shortest impulse wave of three and is not required to be the longest, four wave fails highest price of wave 1 or tip, and a correction should not be greater than 100% of Wave 3.

The theory has gained popularity in the 1970s by Frost and Prechter's work they published a legendary book called "The Elliot Wave Principle-The Key to Stock Market Profits." In this book the authors predicted bullish market in the 1970s and Robert Prechter predicted the fall of 1987.

Recently the role of technical analysis has gone beyond short-term trading purposes. Zhu and Zhou (2009) provides a theoretical justification for investors to use technical analysis on issues relating to capital allocation and show that technical analysis adds value allocation rules for investment into shares of fixed amounts.

In most countries tehnnical analysis is often used in currency markets, equity markets, and commodity fixed. Professional traders and investors ,individuals who invest their own funds use technical analysis tools for the sole purpose of making money. For an investor in a market using technical analysis, it must be sufficiently liquid to allow trading continues to be fungible, and provide easy access to new investors.

In technical analysis the most important instrument is the graphic, because without it you can not put into use other indicators. The diagrams are fully graphical representation of the data. Over time the graphics have evolved, but important information and basic principle of creating price chart remains the basis of technical analysis. In many countries, technical analysts are referred to as "chartists" even though graphs have become antique hand because computer programs displays and analyze data faster and more efficiently. Some analysts still create graphs by hand, because they believe that price changes, trends, forms are more easily visible. Currently the most widely used types of charts that record prices given time intervals are standard line graphs, bar graphs and charts type candle.

The sole objective of a person who wishes to obtain a return on securities markets is to make a profit with minimal risk of capital. Technical analysis is an effective way to gain profit and to control risk. To take advantage in securities markets one must follow three steps: to determine the start of a trend, to get into a position that follows the existing trend and close the position when the trend is over. A person that wishes to enter right into a position must have knowledge of the levels of support and resistance, channels, retracements, he needs to know graphic patterns to identify them in the market and also needs to know the indicators and oscillatory which could be used in the market.

Fundamental analysis is a method of evaluating securities that attempt to predict their intrinsic value by looking at economic, financial, qualitative and quantitative. Fundamental analysis attempts to study anything that could affect the value of a security, including macroeconomic factors and other individual factors

History fundamental analysis as a trading mechanism begins with Benjamin Graham in 1928. Graham and David Dodd in 1934 published their first book called "Security Analysis" trying to define the investment as a result of massive losses on Wall Street. After several years of confusion about the value of most share price declining market (bear market) in history, Graham share prices researched and described for the first time something like a scientific approach to evaluation. He discovers that the law of diminishing gains a competitive implies that economic growth does not always create value and additionally usually not persistent. Therefore Graham suggested that evaluation of actions to be based on the market value of the tangible assets of a company.

From 1934 until the present fundamental analysis was the basis of many theories and analysis. This theory asserts that changes in stock price changes are associated with fundamental variables that are relevant for the action and the dividend yield, the size of the company's revenue, the company's growth. Gordon Shapiro developed the Dividend Discount Model 1956 model, which has become one of the most popular models in financial literature, and is the basis for other studies.

Several studies have established a direct relationship between share price changes and changes in earnings or dividends, among these studies include the study by Ball and Brown in 1968, they conducted a survey on 261 companies, trying to determine the relationship that exist between the financial companies and their market price. They have shown that accounting is important for decisions on the capital market in a period in which this area was developing. An important factor that can affect the price of a share is the company's capital structure because the debt incurred by the company's impact on the value of company assets. Sharpe (1964) and Hamada (1972) enunciated theories about the influence of capital structure.

The literature confirms the effectiveness of fundamental analysis in emerging capital markets. Mukherji (1997) examined the capital market in Korea for the period 1982-1993, and concluded that the stock is positively correlated with the value reported sales price / debt ratio and negatively correlated with company size. Evaluation of a company's shares can be achieved using several models, one of these models is the discounted cash flow model (Discounted Cash Flow Models). DCF model recognizes that actions are interest in a business and their value should be correlated with earnings that investors expect to receive from holding a share.

Realizing a small comparison between technical analysis and fundamental analysis, we highlight some aspects of these two methods of analysis of an action. The technical, the historical share price data provides the opportunity to identify the trend of the action and fundamental analysis provides information about the factors influencing the price action, namely its trend. Fundamental analysis determines the cause that moves the market and technical analysis that concerned what effect on the market. The purpose of these two methods is to determine the direction in which it is possible that prices evolve.

Empirical Review

In the literature there are numerous studies that have as subject the technical analysis, fundamental analysis, respectively, because they are essential to the decisions taken by investors.

In the article by Samina Haque and Murtaza Faruquee, "Impact of Fundamental Factors on Stock Prices: A case based approach on pharmaceutical companies Listed with Dhaka Stock Exchange", published in the journal International Journal of Business and Management Invention, in September 2013, are analyzed factors that could have an impact on the share price listed on the stock exchange in the pharmaceutical sector. In the study were chosen companies that are part of the index chemical. To study the application of the study two hypotheses were formulated as follows: the share price is strongly influenced by fundamentals, not the other unmeasured factors and current market situation is very close to the ideal situation

The study was considered a total of 14 companies in the pharmaceutical sector, which is a 70% of all listed companies in the sector. The data used belong to the period 2005-2011. We have conducted several multiple regression analyzing each company separately. The dependent variable is the share price and the independent variables considered in this study are related to the performance of the company as follows: earnings per share (EPS), dividend per share (DPS), return on equity (ROE), return on assets (ROA) and the ratio of fixed assets and total assets. The regression results showed that only three of the 14 companies have a significance level of less than 0.05

Another article studied is written by Mohammad Ashoub and Abdolhamid Hoshmand "An Investigation Into The Effect Of Fundamental Analysis on Stock's Abnormal Return In The Companies Listed On Tehran Stock Exchange", published in the journal Interdiciplinary Journal Of Contemporary Reasearch In Business in 2012. In this study attempts to show the influence that accounting has on earnings in the stock market. The data used in this study are from the period 2006-2009, and the companies selected are those who have not invested this period. The independent variables used are rates of return (ROE, ROA, ΔROA) ΔLeverage, ΔDividend, ΔProfit before deducting fees, ΔStocuri, ΔVanzari / Stocks., ΔProfit operation / Total assets.

An article studied on technical analysis is written by James C. Van Horne and George GCParker entitled "Technical Trading Rules: A Comment" published in the Financial Analysts Journal in 1968. This article is an extension of research on investment decisions using mobile media . The database used consists of thirty randomly selected companies listed on the Stock Exchange New York Stock Exchange, and they are used daily prices during 1960-1966. For each action, moving averages were calculated for 100,150 and 200 days. The results show that it is not possible to make a consistent profit by trading shares using exponential average. Making a comparison with other studies on simple moving average, the authors concluded that there is no advantage to use exponential moving average because the profitability obtained by using it is lower than the profitability obtained using simple moving average. The findings of this study indicate that future prices can not be estimated based on a comparison of current prices and previous prices.

Study Case

In conducting the case study I have collected data for companies as field of activity: manufacture of chemicals and chemical products that are listed at the Bucharest Stock Exchange. In this sector were included 6 companies that are listed on the BSE, the other companies being listed on the stock Rasdaq. Since the company Oltchim is suspended from trading, in this study I included only 5 companies namely Amonil SA, Antibiotics SA, Biofarm SA, Synthesis SA and Zentiva SA.

In the first part of the case study will make a description of this sector in Romania, followed by this description to analyze companies technically and fundamentally. To achieve this, we use technical analysis platform Anyma and fundamental analysis we used annual data available to investors by companies.

I chose this field because this is an industry in which predominates companies in the pharmaceutical sector, as companies operating in this sector require large investments to be able to develop pharmaceutical research, and therefore investors should find out if this is an area in which to invest to make profit. The economic impact of this companies on the Romanian economy showed that drug manufacturers are among the largest contributors to government revenues from taxes. To analyze this companies I used both technical and fundamental analysis.

To achieve technical analysis I collected daily data including opening price, minimum price, maximum price and the closing price of the shares during the period 2009-2014. To achieve a more accurate analysis we tried to use several indicators, perform a combination of these.

The first indicator used in technical analysis is the exponential moving average, which is commonly used because it has the advantage of giving more importance to the current price. To calculate an exponential moving average must first calculate the exponent, which is what determines the period for averaging, where survey Exponent = 2 / (20 +1) = 0.095238. Exponential moving average was calculated using the formula: EMAT-EMAT = 1 * (1-Exponent) + prett * Exponent. After applying this indicator,I found that in 2013 for the company Antibiotics it have been reported 16 buy signals and 16 sell signals , of which 5 are correct signals for buy signals and three sell signals when signals.

Another indicator used in technical analysis represents a combination of 20 period exponential moving average, MACD indicator and RSI oscillator. To indicate buy signals, ie signals selling MACD line and the signal line must intersect, and be close to the value 0 and the oscillator RSI values must be between 45-55. Under this combination of indicators were generated two buy signal and a sell signal in 2013 for the price share of the company Antibiotics Romania. The third method used to study technical analysis companies represent a combination of Bollinger Bands and RSI oscillator. To substantiate the decision to enter into a position RSI oscillator must comply to that rule formulated for use with the indicator MACD. According to the chart below we can see that in 2013 the share price Antibiotics were given three signals, one for sale in May and two for purchase in June and in late October.

In the event that an investor can not make a decision because it is not confident in technical analysis, does not have enough knowledge to use in making the right technical indicators, it can make a fundamental analysis of the action to determine the price at which the action trade and thus have to take the right decision to enter or not in a position.

In conducting fundamental analysis of company financial data we collected during the years 2008-2013 and evaluated the companies by the method free cash flow to the firm. We decided to evaluate companies using this method because this method is suitable for companies that generate cash.

The results obtained from the evaluation of companies using this method showed that companies Antibiotics Biofarm and Zentiva are undervalued on the market and therefore I recommend opening a long position and Amonil companies and Synthesis recommend opening a short position.

The econometric analysis is based on estimating a panel data regressions in Eviews. A regression of panel differ from a simple regression cross-section or one using the time series that is a dual state of the variables.

In conducting the econometric model we used annual data for the period 2000-2013 companies. The dependent variable in this regression is the annual percentage change in the price of companies. The independent variables are: economic profitability (ROA), return on equity (ROE) Fixed assets to total assets (FA / TA) Earnings per share (PER), EPS, dividend per share (DPS), price to book value (P / B), the solvency ratio (CPR / Total assets), debt level (Given all / Total assets). We chose these indicators because they are very important in financial analysis of a company.

Indicators relevant for this model are EPS, PER, smooth and free coefficient. Between these variables and the dependent variable changes in price are both positive connection and a negative connection, thus increasing EPS by one variable changes in price will increase by 5.94 units at an increase of one variable PER price variation will increase by 0.00979 units to an increase by one unit indebtedness will decrease by 0.4844 price variation, while the other variables take the value 0, the price change will take the value 0.238.

In most regressions I tried to implement there was always a a significant positive correlation between PER and price factor and between leverage and price variation in regressions implemented there significant indirect link.

Conclusions

In this study we conducted technical and fundamental analysis of five companies listed on the Bucharest Stock Exchange having as field of activity manufacture of chemicals and chemical products.

The results of this study in terms of technical analysis shows that using indicators give buy signals, namely sales, but these signals are not always right and an investor would have a small amount of investments could lose if used as indicator MobiLsi exponential average. When using a combination of indicators, oscillators ie, losses that an investor could record are lower compared to using a single technical indicator such as exponential moving average. The right signals were indicated by using a combination of 20 exponential moving average, MACD indicator and the RSI oscillator, and an investor can make a profit from opening a position with these indicators.

From my point of view of an investor my need to know in detail all technical analysis indicators folositț all parties graphic formations candles, yet try to achieve a fundamental analysis if you want to make a profit in the long term. It was very often stated that for an investor trading in short-term, or intraday trading is not necessary to make a fundamental analysis. I would like to argue this as an investor must know the important factors that influence action because By trading short-term indraday, there may be a story that is related to the investee company and the total change in price direction and an investor does not know the basic information of the company will suffer because it will be upside price movement.

Bibliography

1.Ball si Brown, "An empirical evaluation of accounting income numbers", 1968

2.Bauer Richard J , Dahlquist Julie R. Technical Markets Indicators :Analysis & Performance, , 1999

3.Charles D. Kirkpatrick, Julie Dahlquist," Technical analysis : the complete resource for financial market technicians",2010

4.Chaudhary Mohammad Irfan si Mohammed Nishat , "Key Fundamental Factors and Long-run Price Changes in an Emerging Markets-A case study of Karachi stock exchange

5.Constance Brown, "Technical Analysis for the Trading Professionals Irwin Treder's Edge Series", 1999, p 6

6.Dragotă, V. (coordonator); Dragotă, M.; Dămian, O.A.; Stoian, A. „Gestiunea portofoliului de valori mobiliare - ediția a doua", Editura Economică, Bucureşti, 2009

www.bollingerbands.com

www.elliotwave.com

www.bvb.ro

www.investopedia.com

www.stockcharts.com

www.investing.com

www.antibiotice.ro

www.biofarm.ro