

A pragmatic view on the financial theories

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Abstract. *This presentation reviews some real examples from a trading daily basis behavior proving the sentiment is one of the most important drivers when it comes to investment decision. During decades of studying and observing the financial markets we have seen different approaches in the light of many prestigious writers. Are we rational enough to be good candidates for Fama's theory of Efficient Market Hypothesis? Is it true what John Maynard Keynes stated 90 years ago when he said „the market is subject to waves of optimistic and pessimistic sentiment”? Is the financial behavior the new trend in the financial markets? Are Daniel Kahneman (Nobel Prize winner 2002) and Amos Tversky the new challengers in the market theories league? Future research should concentrate on various symptoms of sentiment and what makes investors become prone to sentiment. This is an important issue to be debated since investors constantly have to analyze, process and interpret huge data of information which provides the basis for their actions.*

Keywords: behavioral finance, capital markets, anomalies, bubbles, market sentiment, .financial theories, Romanian capital market, market volatility, market crash, BET-FI Index.

Introduction

When it comes to the capital markets, the experience has all the time a leading role. Theory creates the proper environment to securely explore ideas, but positive results are obtained by hard work into the pragmatic area.

The purpose of the majority of the investors is to understand the market by developing a sixth sense which can guide them throughout the vicious world of capital markets (Baker, Nofsinger, 2010). Starting from this idea we may categorize the investors considering the knowledge, investment duration and risk as mainly criteria of different typologies as it follows:

Table 1. Investors' categories

Knowledge	Investment duration	Risk and profit expectancies
Beginner	Short - a few days to a few months	Low risk - small profit
Moderate	Medium - a few months to a couple of years	Medium risk - medium profit
Expert	Long - more than two years	High risk - big return

Source: Author's own research.

Combining these three criteria we observe that a beginner (low experienced profile investor) will make medium to long term investments with a low to medium risk. Getting more experienced will allow the investors to approach riskier placements, the duration will be medium to short this time and the return is aimed to be bigger since the risk is considerable. In the last category we find speculators, that type of investors less concerned with the fundamental value of a share or asset, but more focus on price movements and news capable to affect prices (Zaloom, 2007). If the first category follows fundamentals (EBITDA, EV/EBITDA, PER, P/BV, net profit, dividends, pay-out ratios etc.) the speculator will scout the market to find any news and intercept any

feeling that negatively or positively could affect the market, reason to take profit of any price movements that can occur respectively.

Different approaches of financial markets. Literature review

Same investors based on their level of experience will be able to interpret the market with more or less complexity (Diermeier et al., 1984). Even if in normal conditions the access to more information is not all the time beneficial for an investor because of the high effort of sort and analyze it, successful investors are very rigorous in order at this chapter and follow some thumb rules.

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In most cases all start from a macro view. If the macro environment is in line with the investor's expecting, the next step is to select the economic area/areas which mostly benefits/benefit in this proper macro environment. Obviously, the final answer is given after applying a S.W.O.T. analysis to the main companies in the selected sector. The S.W.O.T. analysis will identify these facts starting from a fundamental point of view, nevertheless considering three key factors as relevant for a good selection of stocks:

1. Profit of placement meaning the selected company has or will have a profitable path in economic terms. To cash dividends and record capital gain is the main interest of any investor.
2. Safety of the investment is crucial because it balance the risk with the reward. The investors should select companies based on the idea of continuity of the existence of them. Any worries about this aspect should be enough to reconsider the opportunity of that placement.
3. Liquidity of the selected stock, even if this is not a major preoccupation for the common investors, could become a real problem if not well managed. The existence or not of the liquidity can be the main difference between real money and paper money. In other words, until an investor doesn't cash out his position he is only a happy owner of a nice portfolio on paper.

Experienced investors after a rigorous study of the markets (macro -> economic area -> company fundamentals and particular market characteristics) usually try to figure the market sentiment through a final approach, the technical analysis research (Reilly, Brown, 2012). This last one action is meant to identify the right moment of entering the market after observing volumes, patterns, oscillators, trends etc.

The fundamental analysis starts from the financial statements of a company and explores data about assets, liabilities, earnings, revenues, expenses etc. (Helfert, 2001). These figures create the possibility to make comparison among similar companies, to identify which one is more profitable and efficient for the long term. The fundamental analysis is known as quantitative analysis as well and assumes to observe the competitors and the markets besides all financial aspects of a company. Fundamental analysis seeks to detect differences between market value and the intrinsic value of an action by studying earnings, profits, projections on dividends and risks associated with the company, assets and liabilities. The profit to be achieved comes from trading the difference between the market price and the fair basic price, the operation being close when recognizes the „mistake” of interpretation and will re-evaluate the action at the fair price (Bodie, Kane, Marcus, 2014).

Fundamental analysis is based on a number of prerequisites:

- The company will work in the future
- The company has an intrinsic value
- This value can be determined based on company data - Company accounting
- Taxes which they have to pay in the next period;

- The quality of the employees, of the management staff.
- Fundamental analysis attempts to determine a value as close as possible to reality on the basis of information about the company's financial statements, the field in which it operates, the investments made, the assets held etc.

Fundamental analysis of a company involves analyzing financial data from the company, its solvency, its competitive and executive advantages, as well as its competitors. The result of this study is to evaluate the success or failure of a company in the economic environment, as well as the way in which its actions will be influenced (Abarbanell, Bushee, 1997).

As described before, one last step necessary to fulfill the procedure for a profitable transaction is to identify the right moment in the short-term frame. This chapter belongs to the technical analysis. All started more than 100 years ago when Charles Dow and Edward Jones founded Dow Jones & Company. Dow theory assumes the capital markets evolve in trends which reflect the investors' sentiment for short, medium and long terms. A positive trend is characterized by higher highs and higher lows, a negative one occurs when the prices make lower highs and lower lows (Glickstein, Wubbels, 1983). From these simple observations and a permanent need to predict better entering/exiting moments in the market a whole industry has been created. Lots of prestigious economists have created since then lots of theories, indices, oscillators, patterns etc. trying to put on the table more and more relevant and useful instruments to help in the wise investment process. Technical analysis is a form of study of shares by anticipating their evolution based on the study of past financial data, prices and volumes. The technical analysis is the evaluation and the attempt to predict the future trends based on the past evolution of prices. The prices are drawn on the graphs and make different shapes and configurations. According to technical analysts, these configurations are repeated regularly and lead to similar market behaviors.

Technical analysis - a tool for market participants. Methodology.

Technical analysis is a tool for predicting the future course of financial markets based on past price movements. Like weather forecasts, technical analysis does not provide certainty about the future - but it helps market participants anticipate what is likely to change in price dynamics.

One of the most appreciated technical analyst of all times is John Murphy and his well-known creation *Technical analysis of the financial markets* (1999) has the following main assumptions which will be milestone for future generations of chartists:

- The main sources of information available to technical analysts are price, volume and open interest;
- Market evolution includes all the information;
- Prices are moving in trend;
- History repeats itself.

Following the Dow theory this domain of technical analysis was deeply explore and develop in the coming decades, lots of technical theories giving more and more hope that the financial markets' secret could be decipher (decoded) and the continuous effort to reach the philosopher's stone of the markets can be finally achieved. Elliott wave's theory, Wolfes waves, Gann's levels and squares, Jenkins JTTL lines and pitchfork analysis are just a few of many theories who have created huge bases of data, graphs and technical instruments for passionate investors.

As the markets have evolved and the information was more and more accessible, lots of non-believers of these theories have started to emerge and put pressure on the

capability of the new theories to be real useful instruments of predictions. Here are some of the most popular disagrees of ones of the most representatives and successful investors:

- Peter Lynch: „Charts are great for predicting the past.”
- Warren Buffett: „I realized technical analysis didn't work when I turned the charts upside down and did not get a different answer.”
- Warren Buffett: „If past history was all there was to the game, the richest people would be librarians.”
- Benoit Mandelbrot: „Everybody knows that everybody else knows about the support points, so they place their bets accordingly.”

With adepts on both sides, pros and cons, the technical analysis approach remains and will remain a useful instrument to identify a proper level of the market when there is a better chance of winning and getting a better result for an investment.

Let's go back in time now and find out where these theories about economics has started from (Schumpeter, 2006). More than 2,500 years ago the first known figure interested to explore this area was the ancient Greek Hesiod (~750 BC) who made first statements about economics in general. The list continues with other ancient philosophers of the Greco-Roman world, goes further in the Middle Ages represented by Thomas Aquinas (who wrote the thesis *Summa Theologica* sharing his ideas about the concept of a just price) and Nicolaus Copernicus who studied the quantity theory of money. The roots of the modern economy were established by Adam Smith (1723-1790) seen as the father of modern political economy. In his master piece *The Wealth of Nations* Smith (1998) explains for the first time that demand, supply and competition are the elements that control as an „invisible hand” the economic market and bring order into a system that at first looks chaotic and unguided by any law.

Another prominent figure whose ideas are nowadays discussed especially after the financial crisis of 2008 is John Keynes (1883-1946) who is an adept of state intervention in the economy to correct economic cycles. Keynes advocated the use of fiscal and monetary policies to mitigate the adverse effects of economic recessions and depressions. Keynes' main work is *The General Theory of Employment, Interest and Money*, published in 1936 (Keynes, 2008).

A new theory has emerged in 1965 when the economist Eugene Fama published his work *The Behavior of Stock Market Prices* proposing the Efficient Market Hypothesis which states that prices reflect objectively all the existing information (Fama, 1965). In the 20th century the capital markets became more and more attractive, reason for lots of economist to focus on price evaluation and risk. In this respect we must emphasize the extraordinary and inspirational work of William Sharpe who developed the *Capital Asset Pricing Model*, the first model to describe the relationship between expected return and systematic risk for assets and stocks (Sharpe, 1964). The list continues with Harry Markowitz who successfully proposed the *Modern Portfolio Theory* according to who risk and reward go together in finance describing how risk-adverse investors can construct portfolios in order to optimize or maximize expected returns based on a given level of market risk (Markowitz, 1991). The capital markets have evolved creating more and more complex financial instruments, a good environment for the economists Fisher Black, Robert Merton and Myron Scholes to propose a mathematical model containing derivative investment instruments known as Black-Scholes formula. The model evaluates an option by taking into account the strike price, time to expiration and the volatility of the share, not actually knowing the final price of the underlying share at the expiration.

In the last decades more and more economists and market participants became aware of the incidence of the sentiment in the financial markets, reason for Daniel Kahneman and Amos Tversky to find a totally new theory named Behavioral finance that shows the human behavior is not fully rational, explaining this way some persistent anomalies found in the financial markets (Kahneman, Tversky 2000).

If we talk about anomalies in the financial markets we can quote Benoit Mandelbrot who gave in his *The (mis)behavior of markets* (2004) the following astonishing examples:

- Between 1916 and 2003 according to Gaussian theory it should be no longer than 6 days in which the index oscillation is higher than 4.5%; there were 366 such days.
- An oscillation of more than 7% should occur once every 300,000 years; there were 48 such days during this period, 1916 - 2003.
- Events such as Black Monday in 1987, or the Asian crisis of 1997, or the Russian crisis in 1998, as well as the current one with DJIA declines of more than 4% and consecutive days of huge falls should not have occurred or chances were 1 to billions.
- DJIA declines by 7.7% in a day = probability of 1 to 50 billion.
- The decline in July 2002 of the DJIA = probability of 1 to 4 trillion.
- October 19, 1987: - 29.2% decrease of DJIA = probability of 1 out of 10 at power 50.

The conclusion is the fact the markets are risky, recording extreme amplitude developments which should not be ignored. We can issue the idea of the personality of the markets pointing the fact that prices are not only moved by financial events, but also by the perception of the participants, crating this way a general personality of the market. Another topic to be observed is the evolution pattern of the capital market who gives the impression of predictability through cycles and trends, but all the time a crash surprises the market and severely breaks the continuity of the long-time pattern. Another fact emphasized in Mandelbrot's work is the relativity of time in the financial market saying the time is contracting in moments of volatility and vice versa.

Mandelbrot's 10 affirmations about the markets (*The (mis)behavior of markets*):

1. Markets are turbulent.
2. Markets are very risky, riskier than the standard theories imagine.
3. Market timing matters greatly; big gains and losses concentrate into small packages of time.
4. In markets, time is flexible.
5. Prices often leap, not glide; that adds to the risk. In markets, time is flexible.
6. Markets in all places and ages work alike.
7. Markets are inherently uncertain, and bubbles are inevitable.
8. Markets are deceptive.
9. Forecasting prices may be perilous, but you can estimate the odds of future volatility.
10. In financial markets, the idea of value has limited value.

The evolution pattern of the Romanian capital markets. Results and discussions.

The next pictures will reveal some of the veracity of Mandelbrot's affirmation showing 4 examples of extreme risky and volatile market evolution in the Romanian capital market

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REALTIME Stock Exchange - USCMR00159																			
User Tools BIDS Orders Trading Registry Reports Derivatives Ctr Window Help																			
Market Watch																			
Symbol	Market	Status	RefVol	Hi Price	Ask Price	Ask Vol	%Chg	Close	TotVol	Ask Price	Ask Vol	High	Low	Open	Hi Price	Chg			
SPY	REGS	Opened	0	0.9393	0.9393	32,200	-18.88	0.9393	7,722,700	0.9393	0	1.0130	0.9393	0.9393	1.0000	-0			
SPY	REGS	Opened	0	0.9393	0.9393	137,600	-18.88	0.9393	7,767,900	0.9393	0	0.9993	0.9393	0.9393	1.0000	-0			
SPY	REGS	Opened	0	0.9393	0.9393	43,100	-18.87	0.9393	3,800,900	0.9393	0	0.9593	0.9393	0.9393	0.9893	-0			
SPY	REGS	Opened	23,800	0.9393	0.9393	21,000	-18.84	0.9393	1,274,700	0.9393	0	0.7393	0.9393	0.9393	0.7293	-0			
SPY	REGS	Opened	0	0.9393	1.0200	173,600	-14.29	1.0200	1,761,100	0.9393	0	1.0000	1.0200	1.0000	1.0000	-0			
BRO	REGS	Opened	0	0.9393	0.9393	16,400	-14.65	0.9393	155,570	0.9393	0	0.9893	0.9393	0.9393	0.9593	-1			
TELY	REGS	Closed	100	0.2420	0.2500	100	0	0.2500	0	0.9393	0	0.9393	0.9393	0.9393	0.2420	-0			
ESQ	REGS	Opened	0	100.0000	111.0000	50	-12.88	100.0000	8,012	0.9393	0	110.0000	107.0000	100.0000	104.0000	-10			
SPY	REGS	Opened	0	0.9393	0.9393	163,200	0.00	0.9393	1,043,200	0.9393	0	0.9693	0.9393	0.9393	0.9493	-0			
SPY	REGS	Opened	5,600	0.9393	0.9393	5,000	-18.58	0.9393	2,074,100	0.9393	0	0.9393	0.9393	0.9393	0.9393	-0			
PRG	REGS	Opened	3,700	0.9393	0.9393	9,800	-19.80	0.9393	4,068,500	0.9393	0	0.9393	0.9393	0.9393	0.9393	-0			
TEL	REGS	Opened	200	13.3300	13.3700	140	-14.18	13.3900	32,420	0.9393	0	15.1000	13.2000	15.1000	15.5000	-2			
TON	REGS	Closed	24	155.3000	165.0000	0	0.00	0.9393	0	0.9393	0	0.9393	0.9393	0.9393	157.0000	-0			
BIO	REGS	Opened	0	0.9393	0.1250	9,400	-14.38	0.1250	1,326,300	0.9393	0	0.1390	0.1250	0.1390	0.1400	-0			
CMP	REGS	Opened	0	0.9393	0.2940	500	-14.63	0.2940	2,900	0.9393	0	0.9393	0.2500	0.9393	0.9400	-0			
ATP	REGS	Opened	0	0.9393	0.7600	1,200	-18.81	0.7600	61,000	0.9393	0	0.9393	0.7600	0.9393	0.9800	-0			
BAB	REGS	Opened	0	0.9393	0.9526	24,400	-14.88	0.9526	378,000	0.9393	0	0.9801	0.9526	0.9801	0.9821	-0			
PTX	REGS	Opened	93,800	0.3200	0.3200	5,000	-14.70	0.3200	175,000	0.9393	0	0.3400	0.3200	0.3200	0.3200	-0			
TBM	REGS	Opened	93,800	0.3170	0.3120	100	-14.40	0.3170	122,300	0.9393	0	0.3120	0.3170	0.3120	0.3150	-0			
AMO	REGS	Opened	0	0.9393	0.0250	33,600	-14.31	0.0250	788,300	0.9393	0	0.0297	0.0250	0.0297	0.0301	-0			
CLD	REGS	Closed	0	0.9393	0.0000	100	-19.90	0.9393	1,000	0.9393									

Source: BSE.

14 October 2008

REALTIME Stock Exchange - US/CH/FIN/JP																
User Tools MBOs Tickers Trading Registry Reports Derivatives CH Window Help																
Market Watch																
Symbol	Market	Status	Bid Vol	Bid Price	Ask Price	Ask Vol	%Chg	Close	TotVol	Avg Price	Avg Vol	High	Low	Open	Ref Price	Chg
SFT1	REGUS	Opened	36,100	0.9400	0.0000	0	14.42	0.8400	1,959,300	0.0000	0	0.9400	0.9100	0.9400	0.0200	0.08
SFT2	REGUS	Opened	156,500	0.9000	0.0000	0	14.87	0.8600	4,264,800	0.0000	0	0.9000	0.8350	0.9000	0.7500	0.08
SFT3	REGUS	Opened	159,900	0.5000	0.0000	0	14.42	0.5000	6,233,800	0.0000	0	0.5000	0.4620	0.4600	0.4370	0.03
SFT4	REGUS	Opened	60,700	0.6900	0.0000	0	14.88	0.6500	4,908,400	0.0000	0	0.6900	0.6000	0.6900	0.6000	0.09
SFT5	REGUS	Opened	125,300	0.9000	0.0000	0	14.85	0.8800	5,951,800	0.0000	0	0.9000	0.8400	0.9700	0.8600	0.04
MSO	REGUS	Opened	172,110	0.9500	0.0000	0	14.71	0.7500	289,300	0.0000	0	0.7500	0.3500	0.6000	0.5000	0.05
TLV	REGUS	Closed	500	0.2620	0.2680	100	0.00	0.0000	0	0.0000	0	0.0000	0.0000	0.0000	0.2620	0.00
ESB	REGUS	Opened	199	108.0000	0.0000	0	14.86	199.0000	0.074	0.0000	0	109.0000	106.3000	107.6000	84.5000	14.86
BM	REGUS	Opened	2,087,600	0.2400	0.0000	0	14.89	0.2400	544,700	0.0000	0	0.2400	0.2400	0.2400	0.2100	0.03
PRC	REGUS	Opened	92,500	0.2000	0.2040	198,200	12.88	0.1900	17,909,300	0.0000	0	0.2000	0.1700	0.2000	0.1900	0.01
PRC	REGUS	Opened	1,700	0.0330	0.0330	45,100	13.88	0.0330	6,935,200	0.0000	0	0.0340	0.0320	0.0340	0.0300	0.00
TEL	REGUS	Opened	28,970	16.8000	0.0000	0	14.48	16.8000	80,420	0.0000	0	16.9000	16.9000	16.7000	13.8000	0.00
TEN	REGUS	Opened	2,554	168.7000	0.0000	0	15.00	168.7000	4,272	0.0000	0	168.7000	168.1000	168.7000	138.0000	0.00
RO	REGUS	Opened	126,800	0.1400	0.1410	418,400	13.63	0.1400	2,972,100	0.0000	0	0.1410	0.1370	0.1400	0.1300	0.01
CMP	REGUS	Opened	2,900	0.3560	0.0000	0	14.84	0.3560	241,100	0.0000	0	0.3560	0.3500	0.3500	0.3100	0.05
ATB	REGUS	Opened	800	0.8000	0.8100	16,200	13.88	0.8000	1,355,100	0.0000	0	0.8100	0.7900	0.8100	0.7100	0.10
BP	REGUS	Opened	2,000	0.0520	0.0530	58,000	7.74	0.0515	3,283,200	0.0000	0	0.0510	0.0510	0.0510	0.0490	0.00
PTK	REGUS	Opened	64,500	0.3100	0.0000	0	14.81	0.3100	368,500	0.0000	0	0.3100	0.3000	0.3000	0.2700	0.03
TBR	REGUS	Opened	126,100	0.2100	0.0000	0	14.85	0.2100	97,800	0.0000	0	0.2100	0.2100	0.2100	0.1100	0.10
AMC	REGUS	Opened	841,300	0.8240	0.8320	0	14.82	0.8240	3,674,100	0.0000	0	0.8240	0.8220	0.8240	0.8210	0.00
ZO	REGUS	Opened	6,000	0.2600	0.2620	35,000	14.91	0.2610	2,953,800	0.0000	0	0.2620	0.2620	0.2620	0.2200	0.04
ARAX	REGUS	Opened	39,800	0.0945	0.0947	135,000	24.02	0.0945	1,441,800	0.0000	0	0.0952	0.0970	0.0952	0.0762	0.02
ARCY	REGUS	Opened	5,000	0.1520	0.1540	300	18.48	0.1540	274,600	0.0000	0	0.1590	0.1460	0.1590	0.1300	0.05
ARTE	REGUS	Opened	100	0.2200	0.0000	0	24.82	0.2000	700	0.0000	0	0.2000	0.2100	0.2000	0.0500	0.00
COMI	REGUS	Opened	2,000	0.4600	0.4650	1,400	8.62	0.4540	70,700	0.0000	0	0.4700	0.4400	0.4600	0.4160	0.05
CEPE	REGUS	Opened	100	1.3000	1.4000	400	13.82	1.4000	2,700	0.0000	0	1.4000	1.3000	1.3000	1.2000	0.10
DAFR	REGUS	Opened	29,500	0.0971	0.0000	0	14.81	0.0971	1,034,900	0.0000	0	0.0971	0.0950	0.0971	0.0845	0.01
PRON	REGUS	Opened	894	17.0000	20.0000	100	0.00	0.0000	0	0.0000	0	0.0000	0.0000	0.0000	17.0000	0.00
PRON	REGUS	Opened	100	1.5500	1.7000	5,700	0.00	1.7000	1,700	0.0000	0	1.7000	1.7000	1.7000	1.7000	0.00
ROB	REGUS	Opened	5,900	16.9000	17.1000	400	0.00	17.0000	8,000	0.0000	0	17.0000	16.9000	16.9000	16.8000	0.00
PRON	REGUS	Opened	3,000	0.3090	0.2100	37,870	21.81	0.2090	109,580	0.0000	0	0.2100	0.1930	0.1930	0.1720	0.04
ROD	REGUS	Opened	200	5.9800	5.8900	600	12.79	5.7400	400	0.0000	0	5.7400	4.7000	5.7400	5.1000	0.04
ROB	REGUS	Opened	1	10.7000	11.5000	240	29.82	11.5000	1,471	0.0000	0	11.5000	9.6000	9.6000	8.6000	0.00
PRON	REGUS	Opened	111,800	0.2100	0.0000	0	14.87	0.2100	1,988,100	0.0000	0	0.2100	0.2000	0.2100	0.1870	0.03
UTAZ	REGUS	Opened	300	1.0900	44.0000	40	8.00	44.0000	0	0.0000	0	1.0900	0.0000	0.0000	1.4000	0.00
DAFR	REGUS	Closed	100	0.8100	0.9800	100	0.00	0.8000	0	0.0000	0	0.9800	0.0000	0.0000	0.8000	0.00
ARDE	REGUS	Opened	10,000	0.0762	0.0675	88,000	0.79	0.0660	323,800	0.0000	0	0.0660	0.0600	0.0600	0.0760	0.00
MRV	REGUS	Opened	100	0.0000	0.3000	15,100	-3.80	0.3000	300	0.0000	0	0.3000	0.3000	0.3000	0.2700	-0.03
ROIA	REGUS	Opened	300	7.1000	13.6000	29	0.00	0.0000	0	0.0000	0	0.0000	0.0000	0.0000	13.6000	0.00
TRAV	REGUS	Opened	34	15.5000	16.5000	137	0.00	0.0000	0	0.0000	0	0.0000	0.0000	0.0000	16.5000	0.00
ALB2	REGUS	Opened	100	0.2580	0.2590	2,500	17.73	0.2590	634,800	0.0000	0	0.2590	0.2500	0.2510	0.2200	0.03
PRU	REGUS	Opened	3,800	1.9500	0.0000	0	20.00	1.9500	31,700	0.0000	0	1.9500	1.9000	1.9200	1.5600	0.01
COB9	REGUS	Opened	300	27.0000	0.0000	0	25.00	26.0000	100	0.0000	0	26.0000	26.0000	26.0000	23.2000	0.00
STZ	REGUS	Opened	2,000	0.3100	0.4200	11,400	0.00	0.0000	0	0.0000	0	0.0000	0.0000	0.0000	0.3600	0.00
RAF	REGUS	Opened	5,000	0.6000	1.3500	100	0.00	0.0000	0	0.0000	0	0.0000	0.0000	0.0000	1.4000	0.00

Figure 2. Arena trading platform (Bucharest Stock Exchange) – live quotes on different hectic days: 14 October 2008

Source: BSE.

22 October 2008

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REAL Bucharest Stock Exchange - US9CHUH259

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Market Watch

Symbol	Market	Status	Bid Vol	Bid Price	Ask Price	Ask Vol	%Chg	Close	Tot Vol	Avg Price	Avg Vol	High	Low	Open	Ref Price	Chg
SIF1	REOB	Closed	7,100	0.5450	0.5400	47,800	-13.34	0.5400	2,493,000	0.0000	0	0.6000	0.4400	0.4500	0.4900	-0.05
SIF2	REOB	Closed	13,400	0.5050	0.5100	2,700	-14.39	0.5000	4,872,000	0.0000	0	0.6000	0.3000	0.3200	0.3200	-0.02
SIF3	REOB	Closed	0	0.0000	0.0000	1,036,400	-14.69	0.0000	5,982,300	0.0000	0	0.4500	0.4000	0.4000	0.4700	-0.07
SIF4	REOB	Closed	148,100	0.5400	0.5400	10,000	-10.74	0.5400	4,911,500	0.0000	0	0.6000	0.5300	0.5800	0.6000	-0.02
SIF5	REOB	Closed	0	0.0000	0.0450	12,000	-14.57	0.0450	5,703,100	0.0000	0	0.7000	0.6400	0.7000	0.7500	-0.05
RND	REOB	Closed	400	0.4500	0.5000	8,010	-1.73	0.5000	188,600	0.0000	0	0.7000	0.1500	0.6000	0.6500	-0.05
TLV	REOB	Closed	500	0.2620	0.2600	100	0.00	0.0000	0	0.0000	0	0.0000	0.0000	0.0000	0.2620	0.00
RSG	ROGB	Closed	266	73.0000	73.0000	272	-0.68	73.0000	8,897	0.0000	0	80.0000	73.0000	90.0000	81.0000	-7.00
BRV	REOB	Closed	0	0.0000	0.2270	942,600	-14.66	0.2270	1,595,300	0.0000	0	0.2400	0.2270	0.2290	0.2690	-0.04
SNP	REOB	Closed	24,400	0.1790	0.1800	26,100	-10.00	0.1800	5,026,800	0.0000	0	0.1960	0.1750	0.1820	0.2000	-0.02
RHC	REOB	Closed	34,000	0.0297	0.0290	335,300	-3.03	0.0290	1,137,800	0.0000	0	0.0300	0.0290	0.0295	0.0299	-0.00
TDL	REOB	Closed	50	13.7000	13.9000	700	0.00	0.0000	0	0.0000	0	0.0000	0.0000	0.0000	13.9000	0.00
TUN	REOB	Closed	1	137.0000	139.0000	30	-0.63	137.0000	2,132	0.0000	0	147.0000	137.0000	147.0000	147.0000	-0.00
BDO	REOB	Closed	20,000	0.0921	0.0927	8,700	-0.66	0.0927	719,000	0.0000	0	0.0960	0.0910	0.0960	0.0935	-0.00
CMP	REOB	Closed	3,000	0.3070	0.3100	600	-3.16	0.3100	300	0.0000	0	0.3200	0.3100	0.3200	0.3360	-0.01
ATR	REOB	Closed	7,400	0.5950	0.6000	20,000	-11.04	0.6000	144,800	0.0000	0	0.6600	0.6000	0.6000	0.6900	-0.09
BWP	REOB	Closed	1,000	0.0382	0.0390	13,000	-4.49	0.0390	907,000	0.0000	0	0.0410	0.0380	0.0410	0.0416	-0.00
PTB	REOB	Closed	2,000	0.2540	0.2590	1,400	-1.92	0.2590	134,800	0.0000	0	0.2760	0.2530	0.2760	0.2760	-0.00
TBM	REOB	Closed	500	0.1160	0.1230	500	-4.00	0.1200	130,000	0.0000	0	0.1250	0.1160	0.1250	0.1250	-0.00
AMO	REOB	Closed	8,000	0.0191	0.0190	2,000	-0.73	0.0191	844,900	0.0000	0	0.0190	0.0170	0.0190	0.0192	-0.00
AZO	REOB	Closed	500	0.1670	0.1680	11,000	-7.22	0.1670	1,138,100	0.0000	0	0.1870	0.1630	0.1710	0.1800	-0.01
ARAX	REOB	Closed	200	0.0715	0.0730	22,100	-8.92	0.0715	383,400	0.0000	0	0.0775	0.0710	0.0760	0.0795	-0.00
ARCV	REOB	Closed	100	0.1050	0.1140	8,200	-21.09	0.1090	181,900	0.0000	0	0.1300	0.1000	0.1300	0.1300	-0.00
ARTE	REOB	Closed	100	3.0000	3.4000	200	-3.00	3.4000	900	0.0000	0	3.4000	3.0700	3.1000	3.9000	-0.00
COM	REOB	Closed	3,000	0.3230	0.3250	3,100	-12.47	0.3230	40,800	0.0000	0	0.3620	0.3210	0.3620	0.3660	-0.00
CERE	REOB	Closed	9,500	1.1200	1.1700	500	-8.87	1.1200	11,100	0.0000	0	1.1700	1.1200	1.1600	1.2000	-0.00
DAFR	REOB	Closed	10,000	0.0675	0.0690	13,400	-4.76	0.0690	357,700	0.0000	0	0.0770	0.0670	0.0765	0.0765	-0.00
PRON	RMBS	Opened	4	17.1000	20.5000	90	16.79	20.5000	400	0.0000	0	20.5000	17.1000	17.1000	17.1000	2.40
PRDH	REOB	Closed	2,000	1.2000	1.3000	200	-8.47	1.3000	13,500	0.0000	0	1.3500	1.2000	1.2500	1.3000	-0.05
SIGR	REOB	Closed	7,000	17.1000	17.5000	900	0.00	17.1000	6,300	0.0000	0	17.1000	17.1000	17.1000	17.1000	0.00
PRSN	REOB	Closed	1,000	0.1490	0.1550	100	-13.07	0.1490	304,400	0.0000	0	0.1600	0.1480	0.1580	0.1600	-0.00
SHO	REOB	Closed	100	4.0000	5.0000	400	-11.71	5.0000	0	0.0000	0	5.0000	4.0000	4.0000	5.0000	-1.00
RMAR	RMBS	Opened	100	8.7000	9.4000	61	-8.89	9.4000	0	0.0000	0	9.4000	8.7000	8.7000	9.4000	-0.70
BCC	REOB	Closed	4,100	0.1820	0.2030	9,000	-1.50	0.2030	0	0.0000	0	0.2030	0.1820	0.2030	0.2030	-0.00
UTAZ	RMBS	Opened	83	2.0000	44.0000	40	0.00	44.0000	0	0.0000	0	44.0000	2.0000	2.0000	44.0000	-42.00
CAFE	REOB	Closed	100	0.3950	0.4400	5,000	0.00	0.4400	0	0.0000	0	0.4400	0.3950	0.4400	0.4400	-0.00
ARDI	REOB	Closed	6,000	0.0601	0.0690	9,000	-1.43	0.0690	0	0.0000	0	0.0690	0.0601	0.0690	0.0690	-0.00
MRV	REOB	Closed	1,000	1.8000	2.0000	4,000	0.00	2.0000	0	0.0000	0	2.0000	1.8000	2.0000	2.0000	-0.00
REVA	RMBS	Opened	80	7.1000	14.1000	10	0.00	14.1000	0	0.0000	0	14.1000	7.1000	7.1000	14.1000	-7.00
TRAI	RMBS	Opened	100	39.0000	35.0000	200	0.00	35.0000	0	0.0000	0	35.0000	39.0000	35.0000	35.0000	4.00
ALBZ	REOB	Closed	000	0.2200	0.2330	25,000	-9.00	0.2330	0	0.0000	0	0.2330	0.2200	0.2330	0.2330	-0.00
IPRU	REOB	Closed	200	1.0700	1.7400	200	-7.22	1.7400	0	0.0000	0	1.7400	1.0700	1.7400	1.7400	-0.00
COBS	REOB	Closed	0	0.0000	20.0000	100	-23.64	20.0000	0	0.0000	0	20.0000	0.0000	0.0000	20.0000	-20.00
STZ	REOB	Closed	100	0.2670	0.2590	100	0.00	0.2590	0	0.0000	0	0.2590	0.2670	0.2590	0.2590	-0.00
RAF	REOB	Closed	100	0.1700	1.3000	100	1.00	1.3000	0	0.0000	0	1.3000	0.1700	1.3000	1.3000	-1.00

Ticker

Market	Symbol	Volume	Price	Bid Vol	Bid	Ask	Ask Vol	%
REOB	CMP	100	0.3100	2,000	0.2870	0.3130	900	-7.19
REOB	SIF2	85,200	0.5050	13,400	0.5050	0.5100	2,700	-14.39
REOB	PTB	100	0.2590	2,600	0.2540	0.2590	1,400	-5.82
REOB	VRG	100	0.0795	300	0.0680	0.0790	2,000	0.84
REOB	SCD	500	0.3590	1,600	0.3560	0.3760	900	7.81
REOB	GRPH	200	0.0000	10,000	0.0075	0.0100	15,000	36.76
REOB	RHC	366,100	0.0290	14,000	0.0287	0.0295	333,300	-3.91
REOB	COM	3,100	0.3230	2,800	0.3230	0.3250	3,100	-16.87
REOB	BD	37,900	0.0927	20,000	0.0921	0.0927	8,700	-0.88
REOB	AMO	20,000	0.0191	0,000	0.0191	0.0195	2,000	-5.73
REOB	SIF5	100,000	0.0410	0	0.0400	0.0410	12,000	-14.17
REOB	ROCE	2,100	0.7790	1,000	0.6800	0.7700	300	4.85
REOB	ROCF	2,400	0.3170	1,000	0.3170	0.3230	6,000	0.00

Figure 3. Arena trading platform (Bucharest Stock Exchange) – live quotes on different hectic days: 22 October 2008

Source: BSE.

4 November 2008

REAL Bucharest_Stock_Exchange - US9CHH1659

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Market Watch

Symbol	Market	Status	Bid Price	Ask Price	Ask Vol	% Chg	Close	Vol	High	Low	Open	Ref Price	Chg	
BRF1	REOS	Opened	98.000	8.5760	0.0000	8	15.93	0.9750	2,015,200	0.0000	0	0.5750	0.4900	0.5000
BRF2	REOS	Opened	390.000	0.5700	0.0000	8	14.23	0.5700	5,571,100	0.0000	0	0.5700	0.4900	0.5050
BRF3	REOS	Opened	200	0.2110	0.0000	8	18.78	0.3110	8,694,700	0.0000	0	0.3110	0.2690	0.2720
BRF4	REOS	Opened	471.000	0.4950	0.0000	8	14.14	0.5950	2,102,300	0.0000	0	0.5950	0.4940	0.4950
BRF5	REOS	Opened	216.000	0.6600	0.0000	8	14.75	0.6600	5,410,500	0.0000	0	0.6600	0.5850	0.6100
BRD	REOS	Opened	4.050	8.2560	0.0000	228	10.97	8.2000	221,080	0.0000	0	8.2000	7.5000	7.4500
TLV	REOS	Closed	500	0.2620	0.0000	188	0.93	0.0000	0	0.0000	0	0.0000	0.0000	0.2020
BRS	REOS	Closed	18	16.3000	16.3000	300	8.68	78.4000	11,584	0.0000	0	78.5000	75.5000	77.1000
BPH	REOS	Opened	10.100	0.1600	0.0000	33,588	13.51	0.1600	1,676,700	0.0000	0	0.1600	0.1400	0.1500
GNP	REOS	Opened	21.700	0.2050	0.0000	12,588	13.89	0.2050	12,465,700	0.0000	0	0.2050	0.1740	0.1800
WRG	REOS	Opened	191.400	0.0270	0.0000	8	15.88	0.0270	48,178,600	0.0000	0	0.0270	0.0235	0.0241
TEL	REOS	Opened	460	14.2000	0.0000	98	12.79	14.2000	42,440	0.0000	0	14.2000	12.6000	12.7000
TGN	REOS	Opened	111	142.0000	142.0000	7	10.91	142.0000	2,369	0.0000	0	142.0000	125.7000	127.9000
BPO	REOS	Opened	42.900	0.0620	0.0000	0	10.88	0.0620	2,872,200	0.0000	0	0.0620	0.0610	0.0600
CMP	REOS	Opened	26.000	0.1500	0.0000	36,888	11.43	0.1500	78,300	0.0000	0	0.1500	0.1440	0.1500
ATR	REOS	Opened	3.900	0.4620	0.0000	54,188	8.94	0.4700	1,126,300	0.0000	0	0.4700	0.4200	0.4300
BWP	REOS	Opened	582.000	0.0247	0.0000	8	14.88	0.0247	7,310,900	0.0000	0	0.0247	0.0215	0.0215
PTB	REOS	Opened	700	0.2360	0.0000	15,388	12.88	0.2360	188,200	0.0000	0	0.2360	0.2040	0.2100
TBN	REOS	Opened	400	0.1130	0.0000	10,688	7.73	0.1140	63,000	0.0000	0	0.1130	0.1090	0.1110
AMO	REOS	Opened	366.000	0.0220	0.0000	8	15.88	0.0220	16,214,000	0.0000	0	0.0220	0.0200	0.0200
AZO	REOS	Opened	790.000	0.3410	0.0000	8	14.81	0.3410	3,752,600	0.0000	0	0.3410	0.3150	0.3410
ARAX	REOS	Opened	83.000	0.0700	0.0000	26,788	17.83	0.0700	3,132,700	0.0000	0	0.0700	0.0621	0.0645
ARCV	REOS	Opened	6.000	0.0800	0.0000	15,888	12.68	0.0800	421,700	0.0000	0	0.0800	0.0770	0.0820
ARTE	REOS	Opened	600	2.7600	0.0000	788	-5.58	3.0000	1,700	0.0000	0	3.0000	2.8500	3.0000
CUM	REOS	Opened	66.000	0.2910	0.0000	8	14.84	0.2910	130,900	0.0000	0	0.2910	0.2740	0.2750
CENR	REOS	Opened	300	1.0500	1.0000	5,288	-2.84	1.0000	3,700	0.0000	0	1.1200	1.0600	1.1200
DAFR	REOS	Opened	77.000	0.0500	0.0000	8	14.85	0.0500	1,713,400	0.0000	0	0.0500	0.0510	0.0500
PRON	REOS	Opened	200	15.0000	17.0000	98	-0.93	0.0000	0	0.0000	0	0.0000	0.0000	15.0000
PRHE	REOS	Opened	1.000	1.2100	1.2000	1,288	14.43	1.4100	3,200	0.0000	0	1.4100	1.2300	1.2300
ROFU	REOS	Opened	600	0.2160	0.2140	3,488	-0.93	0.2200	462,400	0.0000	0	0.2240	0.2140	0.2200
PRON	REOS	Opened	8.000	0.1450	0.1520	21,878	10.95	0.1520	128,320	0.0000	0	0.1530	0.1320	0.1320
GNDO	REOS	Opened	100	4.7000	5.0000	3,388	-3.04	5.0000	1,200	0.0000	0	5.0000	5.0000	4.9000
HMR	REOS	Opened	250	0.0000	0.4500	125	-5.58	0.0000	688	0.0000	0	0.4500	0.0000	0.0000
BCC	REOS	Opened	5.000	0.2250	0.2280	19,188	7.94	0.2280	567,400	0.0000	0	0.2280	0.2100	0.2120
LTAZ	REOS	Opened	60	2.6000	0.0000	48	-0.39	0.0000	0	0.0000	0	0.0000	0.0000	2.6000
CAFE	REOS	Opened	1.000	0.3800	0.4000	388	-0.53	0.0000	0	0.0000	0	0.0000	0.0000	0.4000
ARDF	REOS	Opened	3.000	0.0050	0.0000	0.000	-2.95	0.0000	305,000	0.0000	0	0.0000	0.0000	0.0000
MRV	REOS	Opened	100	1.6000	1.6000	2,388	-5.58	1.7000	800	0.0000	0	1.7000	1.6200	1.6200
REVA	REOS	Opened	10	2.2000	1.4.0000	14	-0.93	0.0000	0	0.0000	0	0.0000	0.0000	1.4.0000
TRAI	REOS	Opened	20	18.0000	24.0000	188	17.77	25.0000	130	0.0000	0	25.0000	24.4000	24.4000
ALRC	REOS	Opened	300	0.1000	0.1030	2,888	-5.58	0.1030	618,100	0.0000	0	0.1050	0.1030	0.1030
BRU	REOS	Opened	400	1.7000	1.7400	288	-3.42	1.7100	17,700	0.0000	0	1.7100	1.5600	1.5700
CORS	REOS	Opened	200	21.5000	0.0000	8	-25.28	21.5000	600	0.0000	0	21.5000	20.8000	20.1000
STZ	REOS	Opened	200	0.3600	2.4000	1,788	-14.61	0.3600	1,300	0.0000	0	0.3600	0.3810	0.4450
STZ	REOS	Opened	100	0.0500	1.1000	588	-0.77	0.0000	0	0.0000	0	0.0000	0.0000	0.7000

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Figure 4. Arena trading platform (Bucharest Stock Exchange) – live quotes on different hectic days: 4 November 2008

Source: BSE.

The Romanian capital market recorded a very extreme evolution starting with July 2007 and ending with spring of 2009, the financial index going down from a euphoric 96,452 points to no more than 7,666 points in February 2009, as shown in the table below:



Figure 5. BET-FI Index – Romanian capital market

Source: Author's own research.

But what could possibly cause such a tremendous move, a 92% decrease in less than 2 years? There are many facts to describe this speculative bubble followed by the market crash of 2008-2009. With a relative new born capital market in 1995, Romania has entered the European Union in 2007 creating a perfect economic environment for all the companies to expand their activities, to embrace the corporate government, to be more predictable and efficient. This positive and promising climate has attracted numerous foreign investors who have invested in the Romanian economy and capital market. The normal reaction was an appreciation of the values of the listed companies, but in 2007 the bubble burst at the same time with the real estate market and the whole economy in general. It was a hard landing for the economy, the first explicit one Romania had experienced after the communist regime. What has started as a subprime crisis in US in 2007 influenced the climate and sentiment in the Romanian capital market as well, leading to a fast selling process from all the investors categories. In this respect the Romanian capital market was a clear example of euphoria and crisis and nevertheless showed once again that capital markets can be very dangerous if you don't follow the rules and act only by sentiment and wishful thinking. The ingredients who made possible the creation of this bubble was the group mentality, the irrational exuberance and the over liquidity existence in the market. Participants in the market could not agree at that time that an imminent depreciation of the market may appear, they put aside anyone who dared to express a different opinion beside the positive evolution of the market, while the foreigners kept supplying the market with amounts of money big enough to create over demand for shares considering the relative small and illiquid market dimension.

Looking back in time we can find dozens of examples of bubbles and crashes, the first ever described being the notorious case of tulip mania in 17th century. The journalist Charles Mackay was the first to write about it in his book *Extraordinary Popular Delusions and the Madness of Crowds*, written in 1841.

Nowadays the bubbles are getting even faster being in a strong relation with the development of different areas of the global economy. The beginning of the millennium was marked by the explosion of the tech bubble, when Nasdaq who was mostly composed by companies in this area overpassed S&P 500 as it can be easily seen in the image below.



Figure 6. Dot-com bubble (S&P500 vs Nasdaq)

Source: Author's own research.

Well-known companies such as Yahoo or e-Digital recorded amazing evolutions from a few dollars per share to tens or even hundreds of dollars per share and ended the cycle at same small capitalization or even bankruptcy.

A picture who entirely describes the creation, the evolution and finally the burst of a bubble-crash event can be seen bellow, comprising all the sentiments who drive the investors in this volatile world of the capital markets. If the first part of this cycle is easy to ride and all the investors consider is something normal and rewardable for their inspired placements, the downtrend in the sentiment trend is very painful since the investor usually tries to convince itself he is not wrong, he denies the reality and generally capitulates at the end of the whole cycle. The capitulation is the best moment for the professionals to step into the market and put aside cheap shares for the next upward cycle.

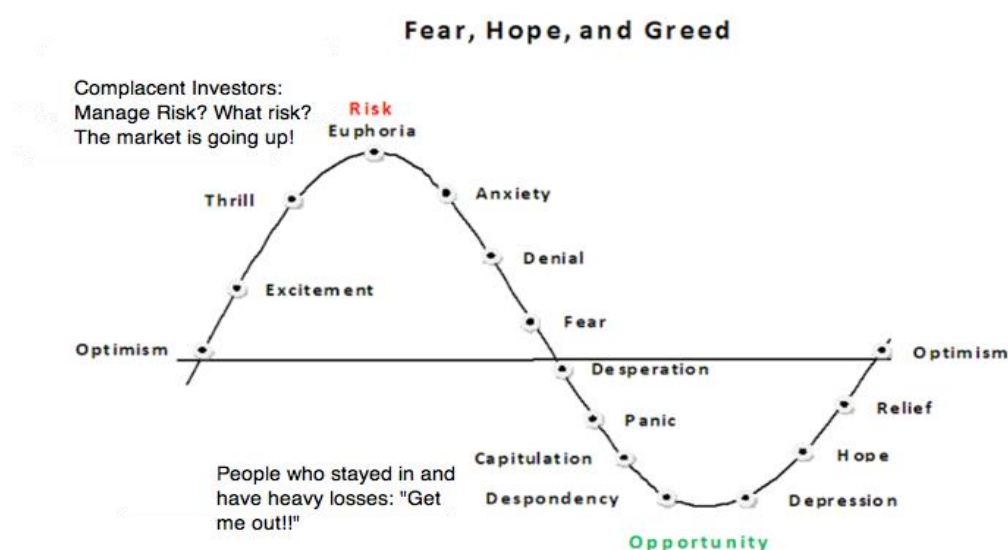


Figure 7. Cycle of investor sentiment

Source: Author's own research.

Conclusions

The markets will continue to have cyclical patterns as long the human beings are behind desks and make decisions regarding shares and investments. Basically, all this volatility has most of the time a common culprit: the sentiment. Neoclassical finance theory does not say anything about investor sentiment because market valuation is based only on fundamentals. Sentiment, as a risk factor, has been rejected because the information-efficient financial markets eliminates irrational participants. However, the frequent occurrence of mistaken valuation of securities prices, untapped opportunities for arbitrage which are reflected in closed-ended discounts, sub-valuation of initial public offerings, weekend effect, January anomaly, financial crises, etc. have generated the concern of some theorists to discover explanations about these market anomalies. Despite this evidence, the researchers have not agreed on a common definition of the sentiment of investors who feel their presence directly or indirectly in their trading activities on the market, reason to find a whole range of definitions in the literature.

And finally, as a generally valid remark, the definitions above do not provide any explanation if the sentiments contain information about the value of an action or about the stock market. Theoretically, emotions are triggered by the availability of information, general knowledge, personal imagination or ability to comprehend. In the

psychological sense, cognitively triggered feelings are the result of an interpretation and explanation of an event by a person. Investors' feelings, under the notion of emotion, always represent expectations about the future evolution of the returns on the shares or the market as a whole.

Even if you are a beginner or an expert the sentiment and the way you judge it will interfere in your decision process and positively or negatively will impact the outcome. The biggest challenge is to understand the market sentiment and try to take advantage of it. Technical analysis and fundamental analysis are extraordinary useful tools to navigate in this volatile world of capital markets, especially when markets transform themselves into promising paradises (bubbles) or unpleasant worlds of hard decisions (market crashes).

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