

Technical Market Anomalies: Leveraged ETF Trading with Daily and Intraday Temporal Functionalities

Vasiliki A Basdekidou^{1*} and Artemis A. Styliadou²

¹Special Research Fund Account (ELKE), Aristotle University of Thessaloniki, Greece

²School of Law, Aristotle University of Thessaloniki, Greece

Abstract

The main target of this paper is to discuss a short-term trading strategy for ETF instruments (as technical market inefficiencies; "momentum effects") and for this purpose, temporal warning dynamics and triggering trading functionalities (TTF) for the daily time-domain (short-term trading) are introduced. The proposed trading strategy is not a fully documented trading system, because it is derived, as well as it has been back-tested on USA Markets sample data (2000-2016) with an initial formal definition and documentation. According to the back-tested sample data, leveraged ETF short-term trading, with a strategy based on these TTF functionalities, offer great profit opportunities. The current paper contributes to corporate finance literature by examining, analyzing and defining these TTF functionalities. For this purpose, four categories of shareholders are regarded: The long-term investors, the short-term swing traders, the short-term momentary speculators, and the intraday speculators. Paper concludes that, in daily and intraday leveraged ETF trading, the short-term swing traders -if they apply the proposed TTF in their trading plans and strategies- are benefit at the expense of momentary and intraday speculators, while the long-term investors in leveraged ETFs are always the big losers.

Keywords: Equity issue timing; Corporate ownership; Liquidity; Market timing; ETF; Temporal Trading functionalities (TTF); Technical market anomalies

Introduction

The main target of the current paper is to discuss a short-term (daily and intraday) trading plan for these instruments characterized as leveraged Exchange-Traded Funds (ETF). Leveraged ETFs are trading instruments that use a combination of derivatives and debt instruments to double (2x) or triple (3x) the movement of an underlying asset or index that it tracks. Obviously, they are not securities and by owing to their leveraged nature, these funds are incredibly volatile, dangerous and risky. ETF could be characterized as technical market inefficiencies (anomalies) because of the great "momentum effect" involved in their trading. Obviously, ETF trading contradicts the well-known "efficient-market hypothesis". Nowadays, leveraged ETFs instruments have grown in popularity with the day trading crowd because these funds can generate returns very quickly (provided of course, that the trader is on the right side of the trade) [1].

The proposed leveraged ETF strategy is actually just a trading "plan" and not a documented trading system, because it is derived, as well as it has been back-tested on USA Markets sample data (2000-2016) with a primitive formal definition and an initial documentation. Security and instrument trading could be regarded as a time-based historical living system with a number of trading functions (e.g. open/close position), price action patterns (e.g. gaps, cups), temporal warning dynamics signals (e.g. on-open gaps, morning cups), triggering signals (e.g. pivotal breakouts, bullish candlestick patterns); all of them incorporating temporal functionalities related to the particular stock or ETF instrument. In the daily and intraday time-domain, various time-frames charts are used as the visual representation of instrument's or stock's price action (e.g. [2-min], [5-min], [30-min], [1-hour]).

In this paper, a temporal (timing) warning dynamics functionality for the daily time-domain and with a number of time-frames ([2-min], [5-min], [30-min]) is introduced (short-term trading). This functionality is regarded as a 2nd level function (i.e. functions of functions; because of the timing involved) with great trading opportunities, and it is defined – for the first time in the corporate finance literature- as a Temporal Trading Functionality (TTF). The leveraged ETF trading, with this TTF functionality offer great trading opportunities for the institutions, the

individual (non-commercial) market investors, the swing traders, and the momentary and intraday speculators. Data analysis shows that on Market's opening and during the first 60 minutes of the trading session, shareowners significantly increase their security shareholding; hence, the involved trading volatility is increased, offering great trading and profit opportunities.

Paper contributes to corporate finance literature by examining and defining this TTF functionality for leveraged ETFs. For this purpose, four categories of shareholders are regarded: The long-term investors, the short-term swing traders, the short-term momentary speculators, and the intraday speculators. Paper concludes that, in daily and intraday leveraged ETF trading, the short-term swing traders -if they apply the proposed TTF in their plans - are benefit at the expense of momentary and intraday speculators, while the long-term investors are always the big losers (if involved in ETF trading).

Literature Review

Trading is regarded as a temporal historical living system [2,3] with a number of leveraged TTFs and time-based company initiatives operating as trading functions [4-6] resulting in excellent trading strategies with great profit opportunities [7-12].

In their studies, Myers, and Majluf [13], Jensen [14], Baker, and Wurgler [15], Baker, et al. [16], Hartzell, and Starks [17], Samba, and Mbassi [18], and Chung, and Ariff [19] argue that trading "time" is regarded only as a function of a well-designed long-term trading strategy. While, Cesari, et al. [20] argues on the effects of share-holding and stock liquidation on the timing transactions on opening and closing

***Corresponding author:** Vasiliki A Basdekidou, Special Research Fund Account (ELKE), Aristotle University of Thessaloniki, Greece, Tel: 302310996000; E-mail: Vasiliki.Basdekidou@gmail.com

Received November 09, 2016; **Accepted** December 23, 2016; **Published** January 05, 2017

Citation: Basdekidou VA, Styliadou AA (2017) Technical Market Anomalies: Leveraged ETF Trading with Daily and Intraday Temporal Functionalities. Bus Eco J 8: 275. doi: [10.4172/2151-6219.1000275](https://doi.org/10.4172/2151-6219.1000275)

Copyright: © 2017 Basdekidou VA, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

positions and Demiralp, et al. [6] state that old-issue security returns and passive trading, are both strongly connected to the coexisting old-issue changes in corporate holding for a time period up to 3 years after the IPO time. Chemmanur, et al. [21] and Gipson, et al. [22] support that long-term passive-trading investors (as opposed to non-commercial short-term investors and traders) are able to receive more security portions hoping on better future returns (profit) and their post-transactions somewhat greatly exceed a passive “Buy-and-Hold” trading planning by the shareholding investors. Cenar and Turcas [23] discuss, under the prism of a comparative analysis, profitability indicators involved in investments. Alti, and Sulaeman [24], Anghel, and Man [25] and Zaman [26] point to how company issuing initiative is influenced by corporate and non-commercial trading. In their paper, they support the position that high stock returns and profit trading trigger equity derivation only if it is connected with a great pre-issue corporate investor demand, as it is regarded consistent by new corporate holdings (swing momentary traders). The Alti and Sulaeman [24] clarify their results as logical and dependable with company initiatives using the corporate investor demand as a gauge of market’s interest. In the above articles and, generally, in corporate finance literature review, no more details for short-term TTF functionalities were given.

In contrast to the above papers, the current article agrees that the trading data are consistent particularly in nowadays IT era, and produce profit with such expectations, as far as the “timing” for ETF is regarded as intraday TTF functionality. Obviously, nowadays, trading equities (stocks), as well as instruments (leveraged ETFs) or non-equities (options, warrants, Forex, etc.), must obey the swing and volatile securities markets rules; and in this domain trading “timing” is very important even for the “buy-and-hold” investors (trading leveraged 3x ETFs; Gold, Silver, WTI Oil, and Natural Gas ETNs; etc.).

In this domain, the main target of the current article is to investigate the influence of “timing”, as a TTF functionality, in trading leveraged ETFs. Actually, we investigate that TTF “timing” in conjunction with a number of warning dynamics signals like on-open gup-ups, bullish price action patterns (uprising triangles, cups), etc., would result in a profitable trade. It is notable that, the TTF “timing” could be regarded as a 2-d function. For instance, in intraday trading 3x leveraged ETFs: 1-d for the morning “timing” and the other 1-d for the price action’s breakout “timing” during the trading session. This 2-d TTF “timing” could be regarded as a not lagging technical analysis indicator, because all news and price action trends have been already incorporated.

The rest of the article is organized as follows: the next section (“Data and Research Methodology”) describes the shareholding data as the corporate shareholding variables for the TTF-based methodology. Following, the section “The Temporal Trading Functionality (TTF)” tries an initial definition of the TTF term by examining the relation between leveraged ETF “timing” and institutional and non-commercial security purchases, as well as the impact of corporate and non-commercial holdings on TTF functionality. Finally, the section “Conclusions and Discussion” summarizes the conclusions and discusses paper’s innovations and contributions.

Data and Research Methodology

For the current paper, the shareholding information, the changes in insider holdings and some sample profit/losses trading data (1990-2016) - used in this paper as the shareholding and profit variables-came from many resources: The Barron’s information databases and sources, a Wall Street Journal affiliate [27]; The StockCharts.com

initiative; The Securities and Exchange Commission/SEC notices, releases and announcements; The Commitments of Traders (CoT)/CFTC speculative net positions reports; The Yahoo! Finance insiders data feed; the SEC EDGAR database; The individual filings at: <http://www.sec.gov/cgi-bin/srch-edgar>; The SEC’s Forms 4 (CEO) and 14a (Directors and Officers); and The Thomson Financial corporate holdings SEC’s Form 13f database [4].

The United States SEC requires that all institutions with a total position greater than \$100 million of securities or equities positions greater than 10,000 shares or positions in individual shares greater than \$200,000, must report their holdings, using the SEC’s Form 13f, quarterly. In this paper, these numbers were used to estimate total corporate holdings and position changes in a sample four-day period.

Also, current paper identifies long- and short-term corporate investors, traders and speculators, based on their average “ETF turnover” portfolio, into a four-day period. The term “ETF turnover” is defined, for the purpose of this paper, as a measure of stock liquidity; calculated by dividing the total number of shares traded over this four-day period by the average number of shares outstanding for that period). Obviously, the higher the “ETF turnover” number, the more liquid the ETF trading instrument in the last four days [28].

The presented analysis is based on a four-day period (sample statistics); and the traders involved in trading were sorted into four categories according to their temporal (time-based) corporate holdings as the percentage of total shares outstanding at the end of each of these four days.

Therefore, in the first category, the institutions ranked in the bottom fourth after having the lowest “ETF turnover” were placed; they are classified as long-term investors (LT investors). In the second category, the institutions ranked in the top fourth after having the highest “ETF turnover” were placed; they are classified as short-term swing-trading traders (ST_1 traders). Then, the rest domain is divided into two equal categories (third and fourth category). In the third category, the short-term momentary traders were placed (ST_2 short-term speculators); and finally, in the forth category, the detected intraday individual or institution speculators were placed (ST_3 intraday speculators).

The back-tested statistics for the sample four-day period are presented in the following Table 1, which displays the summary numbers of 3x leveraged ETF trading and Non-ETF trading from 1st January 2000 to 30th June 2016 (ETF data were obtained from SEC/SDC) [4] (Table 1).

Table 1 notes:

Size – Here, the natural logarithm of Sales, instead of the actual sales number, is used; as the appropriate for the irregular price action chart smoothing transformation. In stock market data statistical analysis, the log(sales) transformation is preferred instead of other ones like inverse(sales) and (sales)².

Return - The Stock return measured over the ETF four-day period.

Market-to-Book is (total assets – book equity + market equity)/total assets.

LT – is the corporate shareholding with a clear Long-term horizon (Investors). Corporate investors’ horizon identification is based on their portfolio “security turnover” over the last four days.

ST – is the momentary corporate ownership with a clear Short-term horizon (Traders and Speculators). The Short-term traders were

	3x Leveraged ETF Trading				Non-ETF Trading			St. dev.	Differences
	Obs.	Mean	Median	St. dev.	Obs.	Mean	Median		
A. Shareholding dynamics data									
Size	4105	4.54	4.54	1.92	90,005	4.70	4.87	2.05	−0.16*
Return	4105	0.50	0.35	1.24	90,005	0.15	0.04	0.87	0.35*
Market-to-book	4105	2.31	1.89	1.59	90,005	1.69	1.25	1.22	0.62*
Total shareholding									
(1) LT investors	4105	8.60	7.92	7.28	90,005	9.55	8.47	9.72	−0.95**
(2) ST ₁ traders	4105	12.27	11.46	10.48	90,005	10.10	8.05	11.58	2.17**
(3) ST ₂ speculators	4105	14.70	12.41	12.54	90,005	11.35	8.57	12.30	3.35**
(4) ST ₃ speculators	4105	16.67	12.09	17.40	90,005	12.88	9.02	13.66	3.79**
B. Shareholding Dynamics Cases									
Continuing cases			Liquidation cases			Initiation cases			
Old LT investors	1,195	25			0				
ST ₁ traders	0	95			0				
ST ₂ speculators	0	310			0				
ST ₃ speculators	0	375			0				
New LT investors	0	0			90				
*Changes significantly different from zero at 5% level									
**Changes significantlv different from zero at 1% level									

Table 1: Sample shareholding statistics.

divided in three categories: ST₁ are the swing Traders; ST₂ are the short-term speculators; and ST₃ are the intraday speculators.

Continuing Shareholding – This term is referred to corporate investors, as shareowners both at the beginning and at the end of the ETF four-day period.

Liquidations – This term is referred to ownership cases where old LT investors and ST traders own shares at the beginning of the ETF four-day period, but liquidate their holdings by the end of this period.

Initiations – This term is referred to cases where new LT investors –i.e. owning no shares at the beginning of the four-day period– establish new positions during this ETF four-day period and continue their shareholding and after this period.

Difference – The difference in Means between leveraged ETF trading and Non-ETF trading.

The result is a statistically unbalanced panel, covering the sample time period from January 1st 2000 to June 30th 2016, with up to 95,000 observations, including a number of more than 4,000 ETFs. The sample period starts from 2000 because from this year the data (shareholding, transaction, etc.) are available in a digital format with a relatively low cost. While weekly data could allow better and more accurate association of the shareholding ETF changes; time shorter (daily) data were used in particular for two reasons. Firstly, because they help to understand better the changes in ETF ownership during the four-day period; and secondly, they provide flexibility in trading leveraged ETFs without serious throwbacks, which are usually occur in time longer (e.g. weekly) data.

The temporal trading functionalities (TTFs)

In this section, the innovative term Temporal (timing) Trading Functionality (TTF) is introduced and analyzed. Chen, et al. [29] and Hao [5] argue that long-term institutions tend to be passive traders not interested therefore for the ETF/TTF functionalities. On the other hand, short-term momentary, swing, and intraday trading institutions (and speculators as well) are better informed and tend to trade actively the leveraged ETFs to exploit their own informational convenience asset position. Trading these leveraged ETFs is a risky and time sensitive procedure that requires to have

Fed Meetings, Reports, etc	Time-Targets ("timing" trading)
USD rate hike trading	Rate announcement time and rate actual time
Day Trading	first/last 5-minutes in a daily trading session (09:30-09:35 am EST, 03:55-04:00 pm EST)
Fed/FOMC monetary policy meetings	Fed/FOMC meetings decision announcement at 02:00 pm EST
Fed/FOMC monetary policy meetings	Fed/FOMC conferences at 02:30 pm EST
Fed/FOMC monetary policy meetings	Fed/FOMC meetings minutes announcement at 01:00 pm EST
Fed Members Speeches	at 10:00 am EST; at 01:00 pm EST
Non-Farm Payrolls reports	first Friday each month at 08:30 am EST
API reports for WTI (USO) inventories	On Tuesdays at 04:30 pm EST
EIA reports for WTI (USO) inventories	On Wednesdays at 10:30 am EST

Table 2: Company Initiatives, Fed Meetings, Reports and Time-Targets.

and to obey a strict time-based strategy. Hence, in trading, the need for a 2nd level timing function of the ETF trading opportunities is obvious and this is the existential definition of the TTF functionality.

The innovative term “Temporal Trading Functionalities” (TTFs) is defined as an array of temporal (timing) functionalities applied to volatile markets like leveraged ETF, traditional company initiatives like SEO and IPO. These functionalities include “temporal” price action patterns like “gaps” (“Windows” in technical analysis terminology) appearing at a particular period during the daily session; and price action “temporal” pivotal point and lines breakouts completing these temporal price action patterns. Even more, these TTFs temporal functionalities could be documented by time-targets in trading instruments and securities (ETFs, stocks, options, futures, Forex) as follows: define swing, momentary and intraday trading strategies based on specific time-targets; and open/close long/short positions at a specific time-target.

These time-targets could be the Fed/FOMC rate hike announcement time; the Fed/FOMC rate hike actual time; the first/last 5 minutes in a daily trading session (09:30-09:35 am EST, 03:55-04:00 pm EST); the Fed/FOMC meetings decision announcement at 02:00 pm EST, the Fed/FOMC conferences at 02:30 pm EST; the Fed/FOMC minutes timing; the Non-Farm Payrolls reports (NFPs) on the first Friday each month at 08:30 am EST; the API and EIA reports on WTI inventories

Ownership	Shareholding Position (%)			
	Before Time-Target ("timing")	@Time-Target ("timing")	After Time-Target ("timing")	Return (Profit)
Long-term Investors (LT Investors)	1,195 (100%)	1,285 (77.93%)	1,260 (100%)	-30%
Short-term Swing Traders (ST ₁ Traders)	0 (0%)	50 (3.03%)	0 (0%)	+45%
Momentary Short-term Traders (ST ₂ Speculators)	0 (0%)	122 (7.40%)	0 (0%)	-8%
Intraday Traders (ST ₃ Speculators)	0 (0%)	192 (11.64%)	0 (0%)	-7%

Where:
 1,195 = No. of the old LT investors (shareowners before Time-Target "timing";
 1,285 = 1,195 (old LT investors) + 90 (new LT investors);
 1,649 (total No. of shareowners at Time-Target "timing") = 1,285 (LT at Time-Target "timing") + 50 (ST1 at Time-Target "timing") + 122 (ST2 at Time-Target "timing") + 192 (ST3 at Time-Target "timing"); and
 1,260 = 1,285 – 25 (old LT investors liquidations).

Table 3: Ownership (No.), Shareholding Position (%) and Trading Results (%).

on 04:30 pm EST (on Tuesdays for API data) and 10:30 am EST (on Wednesdays for EIA data) respectively, etc.

Following, Table 2 (above) presents a small number of initiatives (functions) and the related warning dynamics temporal (timing) TTF functionalities acting actually as time-targets in leveraged ETF short-term, swing and intraday trading (Table 2).

Comparative analysis shows that the TTF temporal functionalities apply better to the following four categories of shareowners:

- Long-term investors ("LT Investors")
- Short-term swing traders ("ST₁ Traders")
- Short-term momentary traders ("ST₂ Speculators")
- Intraday traders ("ST₃ Speculators")

Following, Table 3 (above) presents, in summary, the ownership (no.) and the shareholding position (%), as well as the trading results (profit %) for these four categories of traders. The numbers resulted from the Table 1 sample statistics data (3x leveraged ETF).

As it was expected, the short-term swing traders (ST₁) got the best results thanks to the TTF functionalities (time-based warning dynamics signals and time-based triggering signals) incorporated in their trading plans and strategies. For instance, the [2-min, time-frame] on-open price action gaps (usually the gap-ups and in some cases and the gap-downs) and the [30-min, time-frame] uprising triangles and cups bullish price action patterns for the warning dynamics signals; and the [2-min, time-frame] time-based pivotal points and pivotal lines breakouts accompanied by volume sectional increase, and the morning/noon/evening price action breaks (accompanied by volume increase as well) for the triggering signals.

Conclusions and Discussion

Nowadays, with the internet-based trading era and the advancement of time series data [30], the leveraged ETFs instruments, as technical market inefficiencies (anomalies) with great "momentum effects", offer great temporal trading opportunities for both traders and speculators [32-37].

The current paper follows Zaman [26], Gaspar, et al. [31] and Yan, and Zhang [28], to categorize corporate shareowners according to their income, short or long positions, and investment and trading attitudes, in four categories: long-term investors, short-term swing traders, short-term momentary speculators, and intraday speculators [38,39].

Data analysis shows that even the overnight position in leveraged ETF is risky. Since they use financial derivatives, leveraged ETFs are

inherently riskier than their unleveraged counterparts. The additional risks come in the form of counterparty risk, liquidity risk, and increased correlation risk. Meanwhile, traders also have to consider external factors such as the impact of leverage on portfolio volatility. Hence, leveraged ETFs are not appropriate for long-term investors and retirement portfolios trying to maintain a low beta coefficient [40].

In paper's back-tested sample data, the long-term investors suffer a 30% loss of their capital (Table 3). Leverage is a double-edged sword, with a bigger move down being just as possible as a bigger move up. Also, data analysis applied found that short-term swing traders incorporating in their strategies the TTF functionalities (intraday warning dynamics signals, triggering signal) are benefit (+45%) at the expense of investors, short-term and intraday speculators (Table 3).

Paper contributes to corporate finance literature by: (i) the introduction of the innovative term "Temporal (timing) Trading Functionality" (TTF) as a 2nd level timing function of the ETF function; and (ii) the application of TTF functionalities (long/short trading session: 09:30 am-04:00 pm EST, swing and intraday time-based trading strategies) to leveraged ETF trading.

Acknowledgments

The financial support (covering primary the CoT/CFTC and the Barron's and WSJ.com market data expenses) from the EU/LLP Programme "EPOCHE 2013" (with Project No. 2012-1-GR-ERA 10-10609) is gratefully acknowledged.

Conflicts of Interest

The authors have not declared any conflict of interests with the Barron's Market Data and trading strategies discussed herein. What is presented in the article is as balanced, objective and evidence-based as possible.

Primary Author's Bio Profile

Vasiliki A. Basdekidou holds a B.Sc. degree in Economics from the Aristotle University of Thessaloniki (Greece, 2002), a two-year master's degree in Economics (major: Financial Economics) from the University of Macedonia (Greece, 2005) and a Ph.D. in Corporate Finance from the Bulgarian Academy of Sciences – Economic Research Institute (Bulgaria, 2015). She is working at the Special Research Fund Account of the Aristotle University of Thessaloniki for the last 10 years.

References

1. <http://www.investopedia.com/terms/l/leveraged-etf.asp>
2. Styliadis AD (2007) E-learning Documentation of Historical Living Systems with 3-d Modeling Functionality. Journal Informatica 18: 419-446.
3. Styliadis AD, Vassilakopoulos MG (2005) A Spatio-Temporal Geometry-based Model for Digital Documentation of Historical Living Systems. Journal Information & Management 42: 349-359.
4. Hovakimian A, Hu H (2016) Institutional Shareholders and SEO Market Timing. Journal of Corporate Finance 36: 1-14.
5. Hao GQ (2014) Institutional shareholder investment horizons and seasoned equity offerings. Financial Management 43: 87-111.

6. Demiralp I, D'Mello R, Schlingemann FP, Subramaniam V (2011) Are there Monitoring Benefits to Institutional Ownership? Evidence from Seasoned Equity Offerings. *Journal of Corporate Finance* 17: 1340-1359.
7. Basdekidou VA (2015) Functionality, Returns and Efficiency before and after the Debt Crisis: An Empirical Analysis of the Greek Stock Market (Unpublished doctoral dissertation). Bulgarian Academy of Sciences – Economic Research Institute, Bulgaria.
8. Pezzani F (2016) The "Shamans" of Finance, Derivatives and "Thalidomide". *Bus Eco J* 7: 214.
9. Chiraz A (2016) Does the Index Futures Destabilize the Underlying Spot Market? Some Evidence from French Stock Exchange. *Bus Eco J* 7: 244.
10. Ogden JP, Wu S (2013) Reassessing the Effect of Growth Options on Leverage. *Journal of Corporate Finance* 23: 182-195.
11. Ulum I, Rizqiyah Jati AW (2016) Intellectual Capital Performance: A Comparative Study between Financial and Non-Financial Industry of Indonesian Biggest Companies. *International Journal of Economics and Financial Issues* 6: 1436-1439.
12. Edelen RM, Ince O, Kadlec GB (2015) Institutional Investors and Stock Return Anomalies. *E-Journal SSRN*.
13. Myers SC, Majluf NS (1984) Corporate Financing and Investment Decisions when Firms have information that Investors do not have. *Journal of Financial Economics* 13: 187-221.
14. Jensen MC (1986) Agency Cost of free cash flow, Corporate Finance, and Takeovers. *The American Economic Review* 76: 323-329.
15. Baker M, Wurgler J (2002) Market Timing and Capital Structure. *Journal of Finance* 57: 1-32.
16. Baker M, Stein JC, Wurgler J (2003) When does the Market Matter? Stock Prices and the Investment of Equity-dependent Firms. *The Quarterly Journal of Economics* 118: 969-1005.
17. Hartzell JC, Starks LT (2003) Institutional Investors and Executive Compensation. *Journal of Finance* 58: 2351-2374.
18. Samba MC, Mbassi C (2016) Does Financial Development Spur Macroeconomic Policy Efficiency in the CEMAC Countries? An Empirical Evaluation. *Bus Eco J* 7: 216.
19. Chung T, Ariff M (2016) Money Supply, Banking Liquidity and Stock Index Returns: Evidence from Four Major Capital Markets. *Bus Eco J* 7: 238.
20. Cesari AD, Espenlaub S, Khurshed A, Simkovic M (2012) The Effects of Ownership and Stock Liquidity on the Timing of Repurchase Transactions. *Journal of Corporate Finance* 18: 1023-1050.
21. Chemmanur TJ, He S, Hu G (2009) The role of Institutional Investors in Seasoned Equity Offerings. *Journal of Financial Economics* 94: 384-411.
22. Gibson S, Safieddine A, Sonti R (2004) Smart investments by smart money: evidence from seasoned equity offerings. *Journal of Financial Economics* 72: 581-604.
23. Cenar I, Turcas M (2014) The Comparative Analysis of Profitability Indicators of Companies before and after the Implementation of Investment Projects with non-Refundable Financing. *Annales Universitatis Apulensis Series Oeconomica* 16: 96-109.
24. Altı A, Sulaeman J (2012) When do high stock returns Trigger Equity Issues? *Journal of Financial Economics* 103: 61-87.
25. Anghel I, Man M (2014) The Impact of Financial Communication on Stock Price. The Case of OMV Petrom S.A. 2004-2013. *Annales Universitatis Apulensis Series Oeconomica* 16: 15-25.
26. Zaman K (2015) Measurement Issues of Income and Non-Income Welfare Indicators: Assessment of Pakistan's Pro-Poor Growth. *International Journal of Economics and Financial Issues* 5: 802-811.
27. <http://www.barrons.com/data>
28. Yan X, Zhang Z (2009) Institutional Investors and Equity Returns: Are Short-term Institutions Better Informed? *The Review of Financial Studies* 22: 893-924.
29. Chen X, Harford J, Li K (2007) Monitoring: Which institutions matter? *Journal of Financial Economics* 86: 279-305.
30. Salahuddin M, Tisdell C, Burton L, Alam K (2015) Social Capital Formation, Internet Usage and Economic Growth in Australia: Evidence from Time Series Data. *International Journal of Economics and Financial Issues* 5: 942-953.
31. Gaspar JM, Massa M, Matos P (2005) Shareholder Investment Horizons and the Market for Corporate Control. *Journal of Financial Economics* 76: 135-165.
32. Basdekidou VA (2016) IPO Trading with Short-term & Intraday Temporal Functionalities. *Bus Eco J* 7: 257.
33. Basdekidou VA (2017) Seasoned Equity Offerings as Technical Market Anomalies: Long-term Temporal Trading Functionalities. *International Journal of Economics and Finance* 9 (1).
34. Malkiel BG (2003) The Efficient Market Hypothesis and Its Critics. *Journal of Economic Perspectives* 17: 59-82.
35. Timmermann A, Granger CWJ (2004) Efficient Market Hypothesis and Forecasting. *International Journal of Forecasting* 20: 15-27.
36. Laffont JJ, Maskin ES (1990) The Efficient Market Hypothesis and Insider Trading on the Stock Market. *Journal of Political Economy* 98: 70-93.
37. Basdekidou VA (2016) Technical Market Anomalies: Nonfarm Employment Report Trading with Binary Options & Temporal Functionalities. *Annales Universitatis Apulensis series Oeconomica* 18 (2).
38. Driga I, Dura C (2015) Loan-Portfolio Quality and Managerial Efficiency in Banking. *Annales Universitatis Apulensis series Oeconomica* 17(2):22-30.
39. Gurloveleen K, Bhatia BS (2015) An Impact of Macroeconomic Variables on the functioning of Indian Stock Market: A Study of Manufacturing Firms of BSE500. *J Stock Forex Trad* 5: 160.
40. <http://www.wsj.com>