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BUY-AND-HOLD: THE PARADOX OF BALTIC SECURITIES MARKET

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Abstract

Understanding the characteristics of an efficient market and being able to evaluate the efficiency of a particular market are important topics for investment analysts and portfolio managers. Market efficiency is the extent to which market prices incorporate all currently available information about respective companies. In case of high market efficiency, prices fully reflect all known information, and even uninformed investors buying a diversified portfolio at the tableau of prices given by the market will obtain a rate of return as generous as that achieved by the experts [1, 3]. From other side, if market prices do not fully incorporate information, then there exist opportunities to make profit from data gathering and processing. An efficient market is thus a market in which asset prices reflect all past and present information [2].

The aim of the paper is to perform market situation analysis in order to reveal if investment strategy, used by the majority of Baltic investors, is consistent with the level of efficiency of Baltic stock market.

The tasks of the paper are:

1) basing on literature and international journals' publications, to reveal key features of efficient stock market;
2) to determine which investment approaches are applicable to different forms of market efficiency;
3) by using expert questionnaires as the main methodology, to reveal the level of Baltic Stock Exchange's efficiency; to find out what investment strategy is the most commonly used among pan-Baltic investors; to determine if Baltic stock market is attractive for foreign investors.

The results of the expert survey show that the majority of Latvian investors use an investment strategy which is not compatible with the level of market efficiency of Baltic securities market. According to paper's findings, Baltic investors' should reconsider their investment strategy, as its change might significantly improve the quality of investment, will allow to minimize commission costs and increase overall investment profitability. Since an appropriate, either active or passive, investment approach is selected, further steps for developing investment strategy for Baltic stock market can be taken, so the aim of the current research is to establish a fundamental basis for consistent step-by-step approach to investment to Baltic Stock Exchange.

Market Efficiency and Characteristics of Efficient Market

Market Efficiency and Price Informativeness

When investors plan to buy a company's shares, they attempt to define shares' value by determining how much money they will receive in future dividends from those shares and how value of these shares might change in the forthcoming years. There are considered shares' riskiness and company's ability to earn profits in the future. As a result, share price is a reflection of all known information and represents the collective beliefs of all investors about the business's future prospects. Market efficiency is the extent to which share market prices incorporate available relevant information. If market prices do not fully incorporate information, then there exist opportunities to make profit from gathering and processing information, by buying undervalued shares and selling overvalued shares [3, 4-5].

According to the Efficient Market Hypothesis (EMH), a market is said to be informationally efficient if prices in that market reflect all relevant information as fully as possible [4, 4]. In market-based economies, market prices help to determine which companies and which projects obtain capital, thus helping to direct scarce resources and funds available for investment to their highest-valued uses. As a result, informative prices promote economic growth. The efficiency of a country's capital markets, in which businesses raise financing, is an important characteristic of a well-functioning financial system.

Investment managers and analysts, as noted, are interested in informational market efficiency because the extent to which a market is efficient effects how many profitable trading opportunities (market inefficiencies) exist. Market inefficiency provides opportunities to beat the market, at least in short-term. Consistent, superior, risk-adjusted returns (net of all expenses) are not achievable in an efficient market. In a highly efficient market, a passive investment strategy (i.e. buying and holding a broad market portfolio) that does not seek superior risk-adjusted returns is preferred to an active investment strategy because of lower costs (for example, transaction and information-seeking costs). By contrast, in a very inefficient market, opportunities may exist for an active investment strategy may outperform a passive investment on a risk-adjusted basis [2].

According to efficient market hypothesis, the entry into the market by buyers at any time gives equal benefits to all. The prices are determined in a random manner by competitive forces and perfect information flow, so are independent of the past prices [5, 345].

For markets to be efficient, current prices should fully reflect all currently available information, which means that prices should quickly and rationally adjust to each release of new information. As a result, asset prices in a highly efficient market reflect information more quickly and accurately than in case of less efficient market. Although there is no precise time frame for how quickly asset prices reflect information, it is generally accepted that the adjustment should be sufficiently swift to make it impossible to consistently earn abnormal returns. Chordia, Roll and Subrahmanyam suggest that price adjustment on the New York Stock Exchange happens within one hour [6]. Another important issue in an efficient market is that prices should be expected to react only to the elements of information releases that are not anticipated fully by investors; there should be the unexpected or surprise element of such releases. Investors process the unexpected information and revise expectations (e.g. for future cash flows or return) accordingly. After that, the market establishes new price, which balances the various opinions after expectations are revised [2]. However, numerous academic studies have concluded that investors can reap even superior performance by trading on the basis of the unexpected earnings contained in public announcements. The observance of superior risk-adjusted performance from trading on the basis of publicly available information, actually, appears to be contrary to market efficiency – hence, the expected earnings anomaly [7]. Nevertheless, quick adjustment of stock price to release of new information still is considered by many authors to be one of the core features of effective stock market.

Market Value and Intrinsic Value

Market value is the price at which certain asset can currently be bought or sold. Intrinsic value, also referred as fundamental value, is an estimated true value of the company, considering its balance sheet book value and using different valuation approaches. For defining company's intrinsic value, fundamental analysis is used and various factors are considered, such as value of underlying assets, business model, market factors, analysis of financial statements, future prospects, etc. Intrinsic value of the company, as far as estimation approach may differ, has no exact value.

If investors believe a market is highly efficient, they will usually accept market prices as accurately reflecting intrinsic values. Discrepancies between market price and intrinsic value are the basis for profitable active investment. Active investors seek to own assets selling below perceived intrinsic market value in the market-place and to sell short assets selling above perceived intrinsic value. If investors consider that the market is relatively inefficient, they may try to develop an independent estimate of intrinsic value, which actually may be difficult because of existence of numerous theories and models, such as capital asset pricing model (CAMP) and dividend discount model (DDM) [2].

Number of Market Participants and Information Availability

Number of market participants is one of the key factors, setting the level of market efficiency. In case of small number of market participants, not many people are following the news and, as a result, the price reacts to news releases, either positive or negative, very slowly. In case the company is not a blue-chip, the majority of research analysts do not follow its news and therefore also ignore some changes in its fundamental value. Number of investors and financial analysts, following the security market, should be positively related to market efficiency, as high trading activity and market liquidity contribute to higher market efficiency. Various limitations for foreigners, such as prohibition to trade certain listed stocks, restrict trading activity, which, in its turn, reduces market efficiency.

Other factors, which promote market efficiency, are information availability and high level of financial disclosure. These imply broad coverage of financial news media, availability of analytical reviews about listed companies, activity at financial forums, etc. In case of efficient market, the information available to shareholder is completely up to date, full, fair, reliable and freely available, which implies it is easily accessible at zero or negligible cost. If the market enjoys a particularly high level of efficiency, investors even do not have to read or analyze information, as the market has already done it for them [3, 6].

According to E. Fama (1970), depending on the level of the information availability, there can be distinguished three forms of market efficiency [8; 5, 351]:

- weak form efficiency, when price reflect only past information;
- semi-strong efficiency, when all relevant publicly available information is considered;
- strong form efficiency, which requires that prices, in addition to public information, also reflect private information as fully as possible.

Market Type and Fair Disclosure

Market efficiency also depends on a type of a market. Trading activity and information availability may be lower in smaller securities markets, such as in some emerging markets. At small stock exchanges shares are traded in insufficiently large volumes, or there are also many small companies that are not sufficiently traded. There also may be lack of interest in stocks of small companies, so the market in these thinly traded stocks may be inefficient at times and it is open for speculators to profit from such situations. In case of large stock exchanges, the price of a company's shares is likely to be the same, or about the same, across other exchanges as otherwise arbitragers will buy at one exchange and sell on another at a profit [3, 5].

In case of over-the-counter (OTC) markets, the information provided by dealers who are also market makers for these markets, can vary significantly in quality and quantity terms [2].

Fair treatment of all market participants, promoted by regulatory institutions, such as U.S. Securities and Exchange Commission (SEC), is an essential part of efficient market. Fair treatment implies that all investors have an access to the information necessary to value securities that trade in the market. For example, SEC's Regulation Fair Disclosure requires that if security issuers provide nonpublic information to some market professionals or investors, this information must be disclosed also to the public [9]. This requirement helps to provide equal and fair opportunities, which is important in encouraging participation in the market. SEC's rules also prohibit insider trading or trading in securities by corporate insiders or any other individuals, who possess material nonpublic information about the security and are aware of that [10]. There is a general term, used to describe actions by investors that unfairly take advantage of other investors – market abuse. It includes not only insider dealing but various actions attempting to mislead the market, such as providing false information about a company's performance, manipulating company's report and accounts or giving a misleading impression of the market and the volume of trading in company's shares to influence their price [3, 9].

All the characteristics of efficient and inefficient markets are summed up in Table 1.

Table 1

General characteristics of efficient and inefficient markets

Efficient Market	Inefficient Market
prices quickly adjust to new information	slow adjustment to new information or even ignorance of it
market price reflects intrinsic value	market price essentially differs from intrinsic value
large number of market participants	small number of market participants
no limitations to foreign investors	there are limitations to foreign investors
high level of financial disclosure, investor relations	only minimal required level of information disclosed
zero/negligible information costs	higher fee for information
usually for large stock exchanges in developed markets	usually for small emerging markets
fair treatment of all market participants is promoted	opportunities for different types of investors may vary; higher probability of market abuse
technical analysis is more applicable	fundamental analysis is more applicable
low possibility to beat the market	opportunities to outperform market index
⇩	⇩
passive/buy-and-hold investment strategy	**active/speculative investment strategy**

Source: made by author, basing on theoretical summary

Market Efficiency of Baltic Stock Exchange

According to the key assumptions of different levels of market efficiency, passive or buy-and-hold investment strategy is more applicable in terms of high level of market efficiency, while in terms of inefficient market active or speculative strategy should be used. As far as Baltic countries are emerging markets with small stock exchanges, the author assumes that the level of market efficiency in Baltic countries is much lower than in developed countries. However, according to the reference book “10:00-14:00”, published by Riga’s Stock Exchange in co-operation with leading investment professionals, almost 95% of Latvian investors use buy-and-hold strategy, which, according to theory, is not effective in terms of inefficient market [11, 66]. In order to check this inconsistency, the author of the paper developed her own questionnaire for Latvian investment experts, who have considerable working experience in banking and finance industry and on a regular basis make investment decisions regarding Baltic stocks.

The aims of the expert questionnaire are:

- to reveal which investment strategy is considered by investment experts as the most efficient in case of Baltic stock market and which investment strategy is used by the majority of local investors
- to determine the level of efficiency of Baltic stock exchange
- to reveal the key specific characteristics of Baltic stock market, determine its attractiveness to foreign investors and find out which factors may deter foreign investors from acquiring stocks of companies, listed at Baltic stock exchange

On the whole, the expert questionnaire was filled by eight Latvian investment industry specialists. The following graphs illustrate the results of the survey.

Figure 1. Which investment strategy is more applicable to Baltic stock market in order to achieve higher returns in long terms?

Source: Figure 1 to Figure 7 are created by the author, basing on expert survey results

The majority of experts state that passive or buy-and-hold strategy is more effective in terms of Baltic stock exchange (see Figure 1). The same responses were also to the question "Which investment strategy is used by the majority of Baltic investors?" (see Figure 2). So the results prove that passive investment strategy in case of Baltic Stock market is considered as more effective among professional investment specialists and as well as is more widespread among private investors.

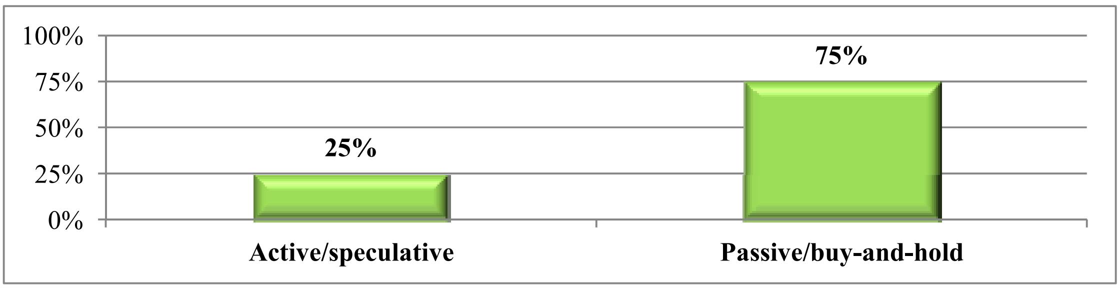

Figure 2. Which investment strategy, in your opinion, is used by the majority of Baltic investors?

All experts were completely unanimous, that fundamental analysis is more applicable in terms of Baltic stock market than technical analysis (see Figure 3). This is actually in conflict with experts' answers to Question 1 and Question 2, as financial theory states that technical analysis is much more applicable than fundamental analysis if a passive investment strategy is implemented. Fundamental analysis implies the search for market inefficiencies and improperly valued assets, while passive investment strategy relies on the fact that current price completely reflects all currently available information.

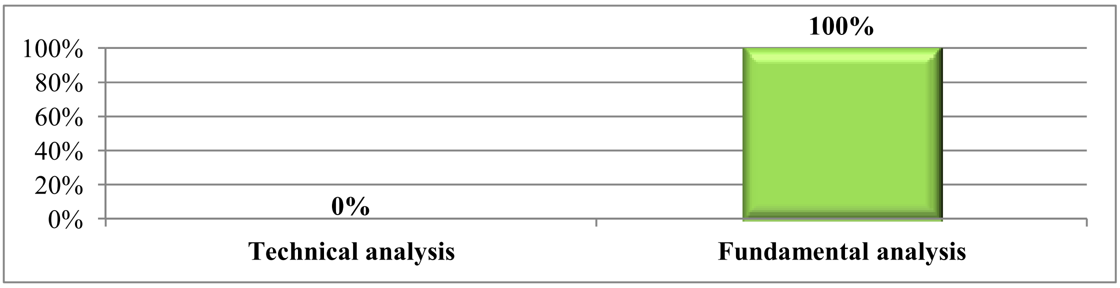

Figure 3. Which analysis approach is more applicable for Baltic stock market?

The first set of questions shows that there is an obvious contradiction between the investment strategy and type of market analysis implemented by Baltic investors. Further questions aimed to reveal the level of efficiency of Baltic stock market.

Asked, how quickly Baltic stocks' prices adjust to new information, the majority of investors stated that on the whole it may take up to one week, or investors may even leave news releases unnoticed (see Figure 4). One expert noted that price adjustments of Lithuanian and Estonian stocks happen quite quickly, during several hours after being announced, while Latvian investors react more slowly or even completely ignore the event.

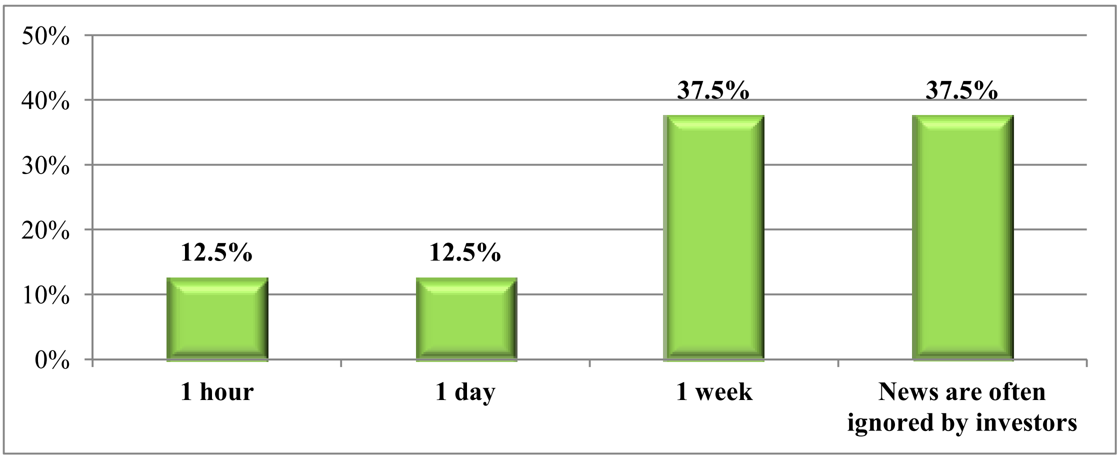

Figure 4. How long does it take for Baltic stocks' market prices to adjust to new information releases?

The majority of experts think that Baltic stock market prices and intrinsic values of underlying companies usually differ quite significantly (see Figure 5). However, experts pointed out that it depends on investor relations of a certain company, business cycle and country. In terms of economic growth the majority of stocks tend to be overvalued while in terms of recession stock prices become unreasonably low. It was also noted that in case of Lithuanian and Estonian markets, stock prices more accurately reflect true value of underlying companies. Nevertheless, the majority of experts still agreed, that, on the whole, market prices do not correspond to companies' true value, which is usually true in terms of inefficient market.

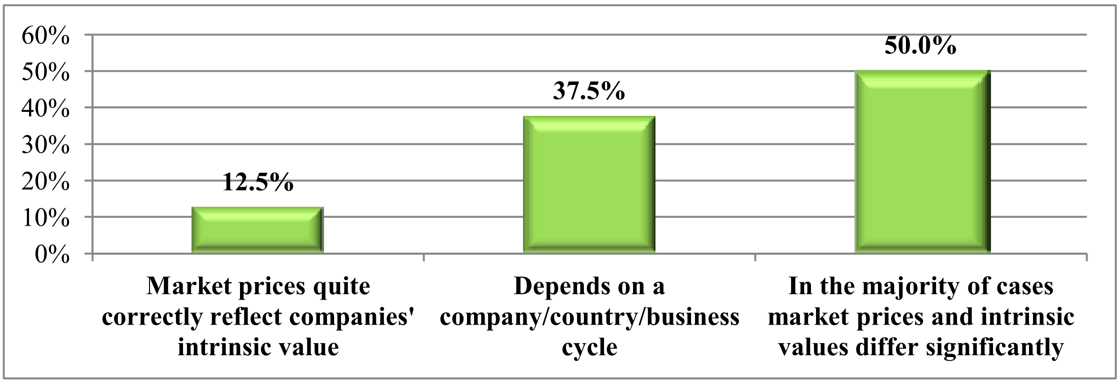

Figure 5. Do stock market prices in the Baltic exchange correspond to their fundamental value and objectively reflect the future prospects of the firms? / Do stock market values objectively reflect the true value of respective companies?

Being asked about number of participants on the market, only two experts claimed that market prices are influenced by many small players. The majority still agreed that the market to a larger extent is influenced by several large participants (see Figure 6). Many small companies with insufficient market capitalization usually enjoy very little interest from large investors' side do to lack of liquidity. Dominance of several large players, according to financial theory, is usually a sign of market inefficiency.

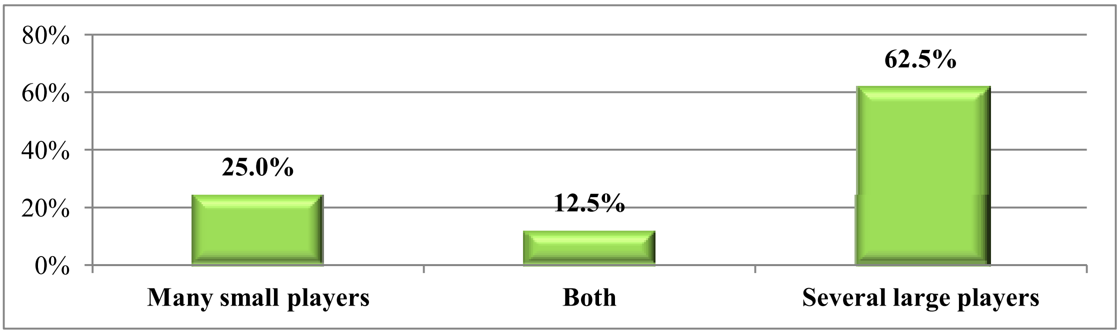

Figure 6. Is the market more influenced by several large players or many small participants?

While estimating quality of investor relations of listed Baltic companies, the majority of experts state that generally companies provide only minimal financial disclosure, hardly communicate with investors during the year and do not really consider stock exchange as a way to attract additional capital (see Figure 7). However, many also noted that some companies, especially in Lithuania and Estonia, as well as some Latvian players, such as SAF Tehnika and Grindeks AS, very willingly communicate with investors and overall quality of investor relations in Baltic countries tends to improve. None of experts fully supported the statement of high financial disclosure, which is also an additional argument for market inefficiency of Baltic stock market.

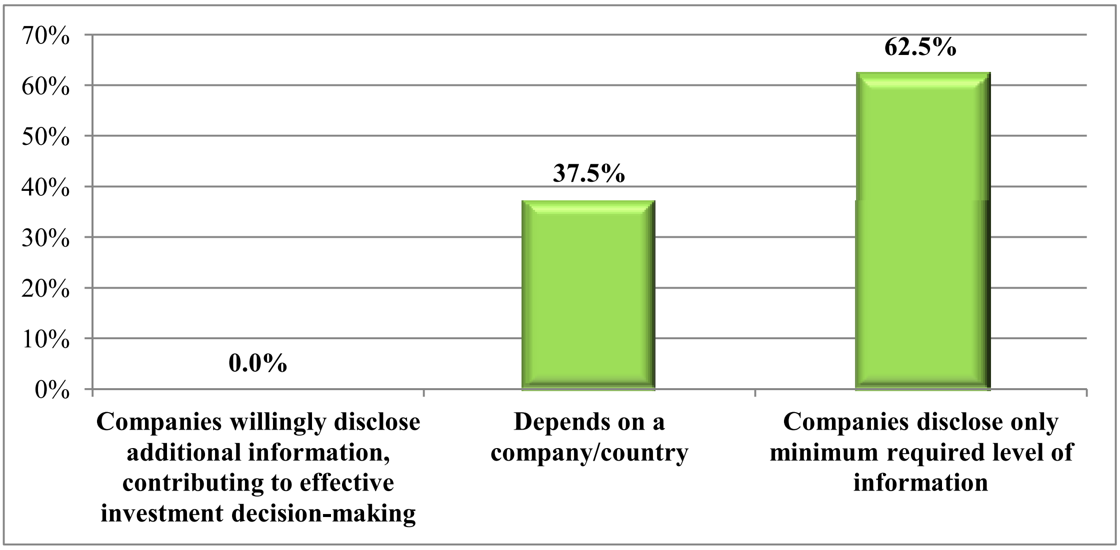

Figure 7. How would you evaluate investor relations and the level of financial disclosure of listed Baltic companies?

The aim of the last two questions in the questionnaire was to determine the attractiveness of Baltic stock market for foreign investors. Only one expert stated that the market is currently attractive for non-Baltic investors. The rest experts classified Baltic stock market as too small, specific, illiquid and inefficient. It was also mentioned that there is a lack of market flagmen – big companies which can attract potential investors, and the market on the whole would benefit from that.

Among key factors, which deter foreign investors from purchasing Baltic stocks, were small market turnover, insufficient market capitalization and lack of liquidity. Baltic market also has a very narrow choice of corporate bonds, which enjoy increasing popularity in terms of economic instability as a less risky investment tool. In the global scope, local companies are too small to attract considerable investments, and these will almost certainly erode market price, causing it to increase significantly. Also foreign investors and funds avoid purchasing controlling stock, as this will require involvement in company management. Many funds also prefer not to acquire more than 5% of company stocks as this requires registration in public owner list.

In Baltic states it is also not popular to raise capital through issuing stocks, the majority of companies prefer to take bank loans, so number of initial public offerings (IPOs) is very low – there were only two of these during 2009-2011. There were also mentioned lack of analytical information, conflicts of interest between managers and investors, and insufficient investor relations.

The problem of Latvian stock market is that the trade currency there still is Latvian lat, which creates additional currency conversion costs. At Lithuanian and Estonian stock markets there is already used euro.

Summary of Survey Results

The results of the expert survey showed that Baltic stock market indeed is highly inefficient, which is in line with initial author's assumptions. However, at the same time experts also agreed that buy-and-hold is more appropriate and more commonly used investment strategy among Baltic investors, than speculative strategy, although the last, according to the finance theory, is much more effective in terms of low market efficiency.

The fact that currently the majority of market participants are using investment strategy which is inefficient in terms of local market conditions assumes that it would be reasonable for many investors to review their approach to investments. One of the key advantages of switching from passive to active investment strategy is an optimization of commission costs. On whole, Latvian banks, such as Swedbank, SEB and LHV Banka, offer two key solutions for commission fees: either charging LVL2 on average for each transaction (for passive investors) or subscribe for trade platform with around LVL8 monthly fee plus reduced LVL0.5 commission for each transaction (for active investors). The following graph (see Figure 8) shows that subscribing for trade platform becomes more economical as soon as number of transactions each month exceeds five.

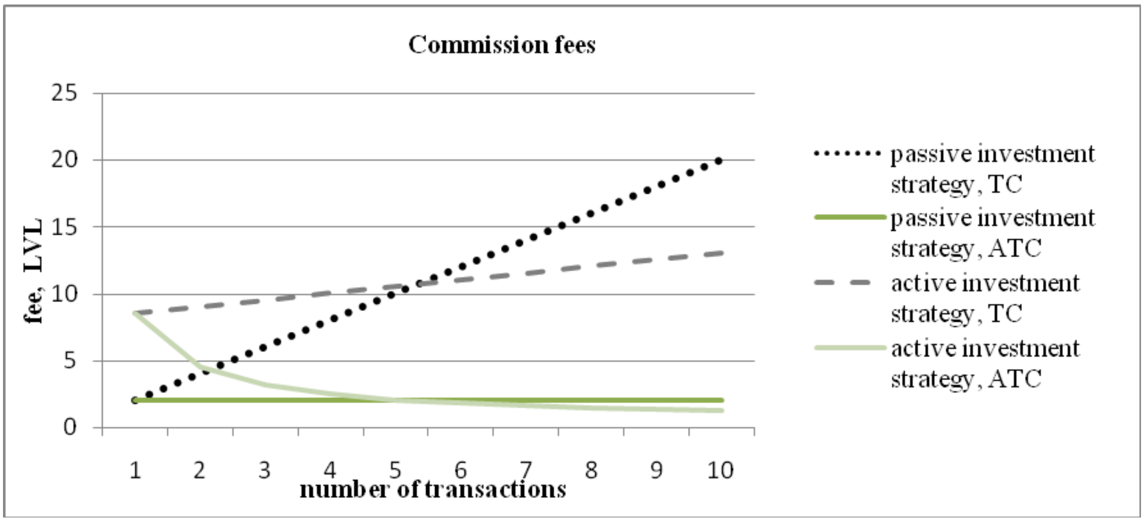

Figure 8. Commission fee in Latvia, depending on number of transactions, LVL

Source: made by author, basing on key Latvian banks' pricelists

Beyond personal benefit and optimization of transaction costs, a switch towards active investment strategy would also positively impact Baltic stock market on the whole. Market turnover and liquidity would improve, which, in its turn, would lead to higher market efficiency, attract foreign investors and even new IPOs.

Conclusions

Market efficiency is the extent to which market prices incorporate all currently available information about respective companies. An efficient market is a market in which asset prices fully reflect all past and present information, as well as quickly and rationally adjust to relevant corporate news. In terms of efficient market, price corresponds to asset's intrinsic value. An efficient market also implies that there is a high level of financial disclosure and highly developed investor relations as well as zero or negligible information acquisition costs. In terms of efficient market, technical analysis and buy-and-hold investment strategy are applicable.

Among key factors, which contribute to increasing market inefficiency, are small number of market participants, limitations to foreign investors, and a higher fee for information. In terms of inefficient market, active or speculative investment strategy is much more effective, comparing to passive strategy, as there exists opportunity to beat the market by trading stocks, market prices of which do not correspond to companies' intrinsic values.

The results of the expert survey show, that Baltic stock market cannot be classified as efficient. At the same time, the majority of pan-Baltic investors use buy-and-hold investment strategy, which, according to theory, is not effective in terms of inefficient market. As a result, a conclusion was made by the author, that, in order to minimize commission fees and improve market efficiency, pan-Baltic investors should switch towards an active investment strategy. The last will increase market liquidity and market turnover and, as a result, also increase Baltic stock market's attractiveness to foreign investors. As a result of improved market efficiency, more Baltic companies might show an interest towards listing in stock exchange, which will contribute to further market development. So the switch to active investment strategy might actually be a key to increasing market efficiency, from which all market participants will benefit.

After summarizing the results of the expert survey, the author of the paper searched academic journals for studies on emerging European stock markets in order to find an additional support for her findings. For example, Fifield, Power and Sinclair, researched eleven European stock markets. The findings indicate that the emerging markets included in the paper are informationally inefficient and active strategy outperformed the buy-and-hold strategy in the emerging markets examined even after the consideration of transaction costs [12]. Many authors also challenge the EMH assumption that technical analysis is not applicable in terms of market inefficiency and state that simple technical trading strategies can be employed for forecasting share price changes also in case of emerging stock markets [13].

As far as there are numerous researches both supporting assumptions of EMH and denying these, the author of the paper sees the necessity to remain flexible and develop a tailored investment strategy for Baltic stock market, which would consider various tools of fundamental and technical analyses as well as various aspects of heuristics and other behavioural factors. Conclusions made within current paper will serve as a starting point for further research on Baltic stock market.

References

1. Burton G. Malkiel: *The Efficient Market Hypothesis and Its Critics*, Princeton University, 2003.
2. CFA Program Curriculum. Level I 2011. Vol. 5. Equity and Fixed Income. pp. 125-133.
3. Barnes Paul: *Stock Market Efficiency, Insider Dealing and Market Abuse,* Ashgate Publishing Group, 02/2009, 225 p.
4. Goss, Barry A.: *Rational Expectations and Efficiency in Futures Markets*, Routledge, 10/1991, 251 p.
5. Avadhani, V.A., *Securlties Analysis and Portfolio Management*, Global Media, 2009, 591 p.
6. Chordia, Tarun, Richard Roll and Avanidhar Subrahmanyam. 2005. *Evidence on the Speed of Convergence to Market Efficiency*. Journal of Financial Economics, Vol. 76, No. 2. pp. 271-292.
7. John C. Alexander, Delbert Goff and Pamela P. Peterson. *Profitability of a Trading Strategy Based on Unexpected Earnings.* Financial Analysts Journal Vol. 45, No. 4, Jul.-Aug., 1989, pp. 65-71.
8. Fama Eugene F.: *Efficient Capital Markets: A Review of Theory and Empirical Work*. Journal of Finance, 1970, Vol. 25, No. 2, pp. 383-417.
9. Regulation FD, Selective Disclosure and Insider Trading, 17 CFR Parts 240, 243 and 249, effective, 23 October 2000.
10. Securities and Exchange Comission, Rules 10b5-1, *Trading on the Basis of Material Nonpublic Information in Insider Trading Cases*, and Rule 10b5-2, *Duties of Trust or Confidence in Misappropriation Insider Trading Cases*.
11. Pelane A., Ukenābele I. Vērtspapīru tirgus. Latvijas pieredze 2008. 124 p. *http://bbs.bns.lv/gramata/gramata_lv.pdf.*
12. Fifield S. G. M., D. M. Power, and C. D. Sinclair. *An Analysis of Trading Strategies in Eleven European Stock Markets*. European Journal of Finance; Dec 2005, Vol. 11, Issue 6, pp. 531-548.
13. Fifield S. G. M., D. M. Power, and D. G. S. Knipe. *The performance of moving average rules in emerging stock markets.* Applied Financial Economics, Oct 2008, Vol. 18, Issue 19, pp. 1515-1532.