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January Effect on Stock Returns: Evidence from emerging Balkan equity markets

Abstract: The motivation for testing anomalies in the selected financial markets in the region was primarily to help investors to devise a viable investment strategy. Taking into account the difficult circumstances faced by the capital markets in developing countries, their efficient operation is under question. While the calendar anomalies in the developed capital markets have been studied intensively, emerging stock markets have received less attention. The aim of this paper is to test historical data on movements of stock exchange indexes in the region, and in that way the possibility of gaining beyond average yields on capital in certain calendar months during the year, also known as the January effect. The paper aims to test the efficient market hypothesis (in terms of the presence or not of the 'January effect') in the financial markets in the region by using daily data of regional stock market indexes. Panel data analysis includes daily data during the period from 2008 to 2014 for the stock exchanges in the emergent economies of Serbia, Bosnia and Herzegovina, Macedonia, Montenegro, Croatia, Romania and Bulgaria. However, in this study it has been proven that the traditional January effect is present only on the stock market in Macedonia. The obtained results on capital markets in selected countries in the region indicate weak sustainability of the efficient market hypothesis in most of the observed countries in the region and the presence of calendar anomalies.

Keywords: Stock, Region, Capital markets, The efficient market hypothesis (EMH), January effect, Calendar anomalies

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Efekat januara na prinos akcija: Dokazi sa balkanskih tržišta kapitala u nastajanju

Apstrakt*: Motivacija za testiranje anomalija na odabranim finansijskim berzama u regionu predstavlja pomoć investitorima da uspostave isplative investicione strategije. Ako se uzmu u obzir otežane okolnosti sa kojima se suočavaju tržišta kapitala u zemljama u razvoju to dovodi u pitanje njihovo efikasno poslovanje. Dok su kalendarske anomalije na razvijenim tržištima kapitala istražene intezivno, berze u nastajanju su dobile manju pažnju. Cilj rada je da se testiranjem istorijskih podataka o kretanjima berzanskih indeksa u regionu, utvrdi mogućnost ostvarivanja iznadprosečnih prinosa na tržištu kapitala u određenim kalendarskim mesecima u toku godine, poznatiji kao efekat januara. Rad ima za cilj testiranje hipoteze efikasnosti tržišta (u smislu prisustva ili ne „Januarskog efekta") na finansijskim berzama u regionu, koristeći se dnevnim podacima regionalnih berzanskih indeksa. Testiranje obuhvata panel dnevnih podataka u vremenskom periodu od 2008. do 2014. godine za finansijske berze, u rastućim ekonomijama, Srbiji, Bosni i Hercegovini, Makedoniji, Crnoj Gori, Hrvatskoj, Rumuniji i Bugarskoj. Međutim, u ovom istraživanju dokazano je da je tradicionalni januarski efekat prisutan samo na berzi u Makedoniji. Dobijeni rezltati testiranja tržišta kapitala u odabranim zemljama u regionu ukazuju na slabu održivost hipoteze efikasnosti tržišta u većini posmatranih zemalja u regionu i prisustvo kalendarskih anomalija.*

Ključne reči*: Akcije, Region, Tržišta kapitala, Hipoteza efikasnosti tržišta, Januarski efekat, Kalendarske anomalije*

1. Introduction

The efficient market hypothesis (EMH) states that prices of securities in the financial market reflect all relevant information. Degutis A. and Novickytė, L. (2014) indicated her wide research has led many reasons. First of all, it is expected that the risk weighted yield will be higher in inefficient markets. Therefore, research in the field of stock market efficiency is important for both private and institutional investors. A comprehensive understanding of market efficiency is also crucial for corporate executives whose decisions and actions determine the perception of company values. EMH can also be used to model the stock market essential for stock market operators and supervisors. In the end, EMH is a basic assumption in multiple financial models.

Surveys conducted in recent decades have pointed to certain short comings in the manifested market efficiency. In the literature, these deviations from the financial markets efficiency are called anomalies. The presence of the

calendar anomalies has been documented extensively in the last two decades in the financial market. Whenever the behavior of the stock market deviated from the theoretical position, such deviation was called an anomaly. A significant volume of scientific literature documented the calendar anomalies caused by a weak form of capital markets efficiency. There is still no easy way to win the market, but there are anomalies, or deviations from certain norms.

Excessive volatility in the capital market is among the key contradictions with theefficient market hypothesis. The January effect means higher average returns in the first month of the year compared to the other months of the calendar. The presence of this anomaly in the capital markets creates an opportunity for investors to buy shares at lower prices till the month of January, and then to sell the same in January when their prices start to rise. Although some researchers claim that this occurs when investors close unprofitable positions at the end of the year to reduce the tax burden, while the opposite happens at the beginning of the year when investors use their money to open new positions in shares. However, this assumption does not explain why investors who are exempt from income tax does not seize the opportunity to buy more shares at the end of the year. There is a lack of response to another question, why does the January effect occur with shares that did not record a drop in price. The third question on which there is no valid answer is why does the January effect occur more with small rather than large company shares. The absence of answers to these and other issues reflects the January effect as a serious anomaly for the efficient functioning of financial markets.

The paper is structured as follows. After the introductory part, the first chapter is reserved to a literature review on the January effect in the emergent economies, the second chapter studies the research methodology and data, the third section is reserved for empirical research. Finally, the fourth chapter highlights research results and is followed by the conclusion and suggestions for further research.

2. Literature review

Asteriou, D. and Kavetsos,G. (2006) examined the efficient market hypothesis (in terms of the presence or not of the 'January effect') for eight transition economies, namely the Czech Republic, Hungary, Lithuania, Poland, Romania, Russia, Slovakia, and Slovenia, from 1991 till the early months of 2003 using monthly time series data of the stock markets of each country. The main results supported the existence of seasonal effects and particularly of the January effect for most of the countries in sample. They found stronger

evidence of the presence of January effect in stock markets of Hungary, Poland and Romania.

Dim, B. and Milos,L.R.(2009) conducted empirical research of the Bucharest Stock Exchange which was based on daily observations during the period from 10.04.2000. to 08.04.2009. Basic statistical data (flattening, asymmetry) indicate that historical data on return of stock market indexes do not have normal distribution. They found out that investors can not find a particular pattern according to historical share prices which would enable them to earn abnormal return rates. The analysis of the Romanian capital market leads to conclusions which are different from those mentioned in the literature. In the context of financial crisis, when emotions and fears are changing the theoretical principles, investors have a negative impact on market behavior, which leads to changes in the yield of shares on the emerging capital markets, such as Romania. Therefore, it is crucial to be cautious when analyzing, expand the database and apply a different methodology when testing the EMH.

Šonje, V., Alajbeg, D. and Bubaš, Z.(2011) showed that stock markets are inefficient for the Croatian and U.S. markets in the 2002-2010 period. However, this result seems to be mainly due to the impact of the crisis of 2008- 2009. The observation of monthly data in the pre-crisis period suggests market efficiency in the U.S. and (rather surprisingly) in Croatia also. Daily data indicate a high degree of effi ciency of the US stock market before the crisis, but it is impossible to conclude with a satisfying level of confi dence that the Croatian market was inefficient in that period.

In their study, Balint, C. and Gică, O. (2012) divide observation period into two parts: pre-crisis period from 2003 to 2007, and the crisis period from 2008 to 2011. They noticed that the January effect on the Romanian capital market occured before the financial crisis, but during the crisis due to lower share prices, the negative values of this effect were declined. Thus, they conclude that during the crisis, investors can realize profits if they invest in shares of companies with small capitalization, since the evolution of the share price of these companies is not influenced by external financial problems.

Diacanosu, D.E., Mehdian, S. and Stoica, O. (2012) in their study investigated the effects of day and month on the Bucharest Stock Exchange in Romania by using daily dataon yields of stock market indexes from 2000 to 2011 (BET and BET-C). The study finds no traditional Monday effects nor January effects on the Romanian Stock Exchange for the entire period of observation, but in the pre-crisis period (2000 to 2007) both Monday and January effect were noticeable. However, the analysis of the subsample gives different results for testing of these effects, whether due to increasing maturity of the capital market, the EU accession and other important events, such as financial crisis.

It follows that the Romanian capital market is reasonably effective and that there is no ideal timing for achieving the abnormal return rates.

Guler, S. (2013) in his study investigated the existence of January effect in Brazil, Shanghai, India, Argentina and Turkey indices with use of power ratio method. Monthly logarithmic returns of each market are used starting from the first transaction day to the December 31, 2012. Results indicate existence of the January effect in China, Argentina and Turkey returns. However no evidence of a January effect is found at Brazil and India stock markets.

Ananzeh, I.e.N. (2014) examined random walk hypothesis and tests the weak-form efficiency of the of the stock market returns in Jordan, by using daily observations for the Amman Stock Exchange (ASE). Parametric and nonparametric tests employed for examining the randomness of stock prices for ASE. The results of serial correlation rejected the presence of random walks in daily returns of the ASE Index. In addition, the runs tests concluded that the ASE at the weak form is inefficient. The unit root tests also concluded the weak-form inefficiency in stock return series for ASE.

Friday, H.S. and Hoang, N. (2015) examined seasonality in Vietnam Stock Exchange, over 10 years, since the market's establishment on July 28th, 2000 until December 31st, 2010.. They found significant positive returns in the month of April whereas significant negative returns in the month of July.

Sarpong, B. (2015) in his study investigated wheather the January anomaly or any form of monthly seasonality exist in the Ghanaian stock market returns. The sample period of the study extends from 1st April, 1999 to 28th February 2014. The sample period is divided into two periods with the first sample period covering the dates from 1st April, 1999 to 2nd February, 2005 and representing period in which the Ghana stock market was trading three times in a week. The first period recorded no evidence of January effect or any other form of monthly seasonality. Second sample period spans from 3rd February, 2005 to 28th February, 2014 also representing the duration in which the exchange was trading five times in a week. The second period recorded significant anomalous positive returns in the months of January, April, May and June. The month of March and July also recorded significant negative returns during the same period.

Simbolon, I.P. (2015) in his study examines the January effect on stock market returns by using the unconditional and the conditional method. This study uses daily closing prices of 12 firms listed on the Indonesian Stock Exchange by using LQ-45 index from January 2006 to December 2013. Independent sample t-test is applied to examine the significance of the January effect. Result don't support the January effect by using the unconditional and the conditional method. Otherwise, returns on December are significant higher than returns on January using the unconditional and the

conditional method (down market). But when using the conditional method (up market), returns on Januray are higher than returns on December but not significant.

Patel J.B.(2016) examined the presence of January effect in international stock returns for the recent time period, January 1997 to December 2014. He was interested in examining January effect in a representative U.S. stock index, developed stock index as well as different regional stock market indices and the emerging stock market index. Results indicated that January effect does not exist anymore in international stock returns.

3. Methodology and data

For the analysis of the January effect, daily data on stock market indexes at the stock markets in the region were used. Panel data testing includes daily data during the period from 2008 to 2014 for the stock exchanges in Serbia (BelexLine), Bosnia and Herzegovina (Sarajevo Stock Exchange - Sasx and Banja Luka Stock Exchange - Birs), Macedonia (MBI-10), Montenegro (Monex), Croatia (Crobex), Romania (BET) and Bulgaria (Sofix). For the purpose of experiment, tools such as SPSS 20 and Excel, as very convenient program for calculating and presenting the average yield per month were used. Daily data were converted to a logarithmic yield, because in statistical research prices fluctuate on a daily basis, and the yield has a certain trend, which is crucial for research purposes and investors. The obtained results of testing the capital markets in the countries in the region indicate weak sustainability of the market efficiency hypothesis in most of the observed countries in the region (the emerging economies). Daily returns on stock indexes, which are representative examples of the selected financial stock exchanges in the region, are calculated by the following mathematical formula:

$$r_t = \quad ln \left(\frac{Pn_t}{Pn_{t-1}} \right) x \; 100 \qquad\qquad (1)$$

Where is:
Pn_t– return in period t
Pn_{t-1}– return in period t-1

After conducting analysis and visual graphics insight into average yields on the stock exchanges in the region, the next step was testing of the average daily returns for all months of the year in order to examine whether they are statistically different from zero or not. To test this hypothesis it is necessary to use the T-test, which is calculated by applying the following formula:

$$t = \frac{\overline{X} - \mu}{\frac{\delta}{\sqrt{n}}} \tag{2}$$

Where is:

$\overline{x}$ – average daily return

μ - hypothetical value that is equal to zero (0)

n – number of observations

σ- standard deviation

σ/√n – standard error

Table 1: Summary statistics of daily yields of stock market index in the capital markets in the region

		BelexLine	Birs	Sasx	Monex	Bet	MBI10	Sofix	Crobex
N	Valid	1767	1741	1750	1728	1760	1718	1734	1747
Mean		-.0541	-.0728	-.0937	-.0639	-.0177	-.0835	-.0704	-.0756
Skewness		.529	.154	.113	.856	-.601	-.628	-.995	-.337
Std. Error of Skewness		.058	.059	.059	.059	.058	.059	.059	.059
Kurtosis		13.585	9.211	8.463	10.904	8.320	10.589	9.498	14.833
Std. Error of Kurtosis		.116	.117	.117	.118	.117	.118	.117	.117
Minimum		-6.73	-4.78	-8.18	-9.71	-13.12	-10.28	-11.36	-11.36
Maximum		10.37	6.53	8.76	11.29	10.56	6.66	7.29	13.74

Source: Review authors

Table 1. represents descriptive statistics for the stock market indexes in the region. Descriptive statistics indicates the relative value of percentage changes in stock market indexes (minimum and maximum) that stocks markets recorded in the reporting period from 2008 to 2014. The percentage change in price movements in stock exchange indexes was recorded on a daily basis. Looking at the arithmetic mean value of the yield of the stock exchange index, all stock exchanges in the region recorded a negative value. BET stock index for the reference period recorded the highest average yield (lowest negative average yield), while the lowest average yield (the highest negative average) was recorded at Sarajevo Stock Exchange, that is, at the Sasx stock exchange index. Percentage change showed a positive asymmetry in the stock markets in Serbia, Bosnia and Herzegovina and Montenegro, while other stock exchanges had a negative coefficient. In the opinion of many authors negative coefficient of asymmetry is a characteristic of developed financial markets.

In the following section the sensitivity of the stock exchanges in the region to the January effect, known as the capital market anomaly, was tested. T-test

was used to indicate the significant differences in average yields on the stock exchanges. The January effect is associated with higher average yields of stocks in the month of January compared to the other months during the calendar year. To test the January effects on stock exchanges in the region, researchers compared the average daily yields of stock market indexesin January with yield in other months of the year. Since the effect of the month at the observed stock exchanges was not known, test was performed for all months during a calendar year in order to determine whether the yields in a given month awere significantly different from yields in other months. T test is used to compare mean values of the two populations.

Hypothesis in the case of the month effect is

H0= μ1 = μ2
H1= μ1 ≠ μ2

μ1 – *average daily yield of the stock exchange index in the reporting month*
μ2 – *average daily yield of the stock exchange index in other months*

Based on the objectives of research, the null and the alternative hypothesis can be based.

H0 - average daily yield of the stock exchange index in the reporting month, is equal (statistically significant), to the yields in other months and there are no calendar anomalies in selected stock markets in the region.
H1 - the average daily yield of the stock exchange index in the reporting month was not statistically significant with yields in other months and calendar anomalies are present in selected stock markets in the region.
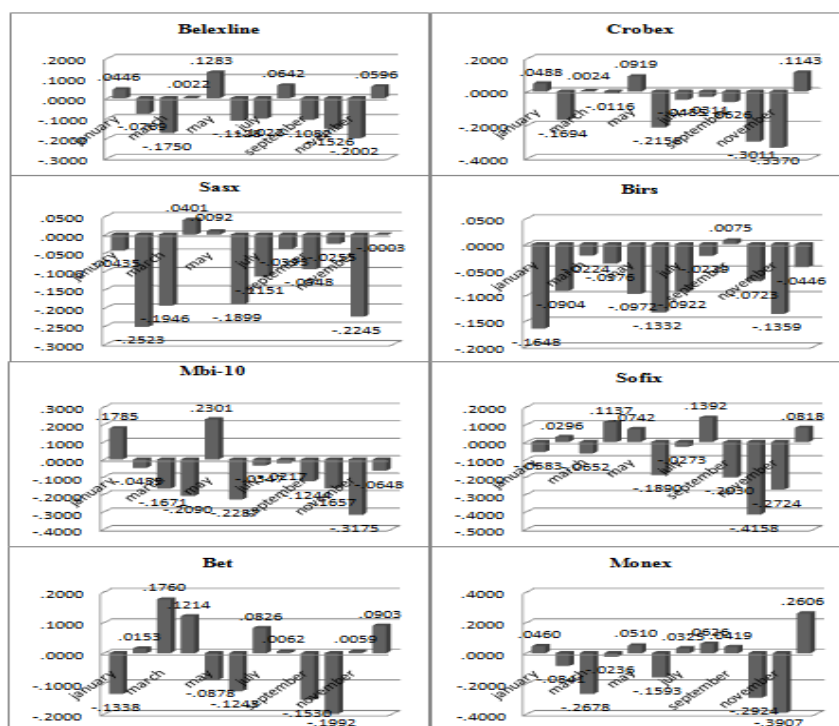
If the p-value (sig) is greater than the critical value of 0.05 T-test is not significant, then the null hypothesis can not be rejected, which means that no existence of the January effect was observed on the stock exchanges in the region. If the p-value (-value) is less than the critical value T-test is statistically significant, then the null hypothesis can be rejected, or it can be concluded that there was January effect, i.e. anomaly, in the reference period on the observed stock markets.

4. Research results and Discussion

Visual inspection of the Fig.1 shows that the Belgrade Stock Exchange recorded positive average yields in the months of January, April, May, August and December. The highest average daily yield of the stock exchange index Crobex, at the Zagreb Stock Exchange, was recorded in December (.1143). Sarajevo Stock Exchange achieved a positive average yields only for a period of two months during the reference period, in April and May respectively.

Figure 1: Average return of stock indices per month in the period from 2008 to 2014.
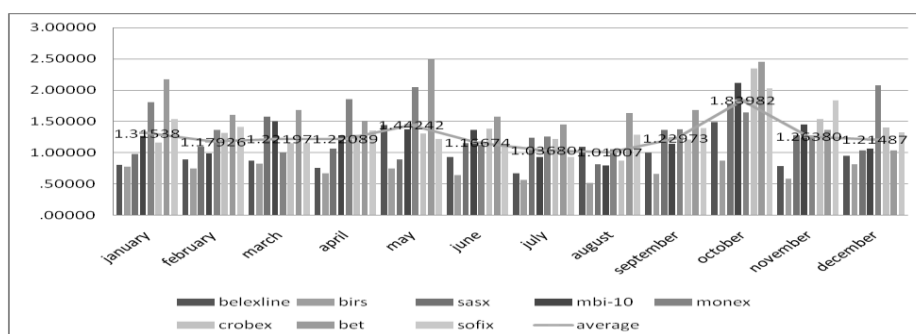

Source: Author´s calculation and ilustration

Banja Luka Stock Exchange, on average, achieved a positive yield only in September. Macedonian Stock Exchange recorded a positive average yields in January and May (.2301 and .1785 respectively), but the month of May also recorded a high instability. The lowest average yields were recorded in November, June and April. November is characterized by the highest average fluctuation (1.45400) and the lowest average yield for the reference period (-.3175). During the reference period, the Montenegro Stock Exchange Monex recorded the highest yield during the month of December, August, May and January, while the lowest average yield was achieved in November, October, March and June. The largest number of months (seven months) in which positive average yields were achieved, during the calendar year for the reference period, were recorded on the Bucharest Stock Exchange. The highest average yields on the Bucharest Stock Exchange were recorded in March and April. In August and April, the Sofia Stock Exchange recorded the highest yields for the reference period (.1392 and .1137, respectively), while the lowest average yields were recorded in October and November (-.4158

and -.2724, respectively). Based on the given facts it can be seen that the smallest number of months with a positive average yield on stock indexes were recorded at Banja Luka, Sarajevo and Macedonian Stock Exchange.

Figure 2:The standard deviation of the average amount per month in the period from 2008 to 2014, stock indexes and the average movement of standard deviations of the region

Source: Author´s calculation and illustration

The Fig. 2 shows the standard deviation of daily yields per month for the stock market indexes in selected countries in the region in the period from 2008 to 2014. It is noticeable that certain stock market indexes recorded a higher standard deviation from the average standard deviation for the region. The exceptions are the stock index of the Belgrade Stock Exchange - BelexLine and the stock market index of Sarajevo Stock Exchange - Sasx, which in all months (except in the month of May for BelexLine) recorded a lower standard deviations from the average standard deviation of the region. Stock market index of the Banja Luka Stock Exchange, Birs, in the month of October and March recorded the greatest instability (sd.- .87958 and .82543). Stock market index of Montenegro Stock Exchange, Monex, recorded a much higher standard deviation from the average standard deviation of the region in January, February, April, May, July and December. The standard deviation on the Zagreb Stock Exchange, the stock exchange index Crobex, was higher than the average in the region in February, June, October, November and December. When it comes to the standard deviation, an interesting situation occured on the Bucharest Stock Exchange, because in the reporting period - BET stock index recorded a higher standard deviation from the average standard deviation for selected countries in the region in all months except December. The maximum deviation from the average was recorded in the January and May. On the Macedonian Stock Exchange, stock exchange index MBI-10 deviates from the average fluctuations in March, June, October and November. When it comes to the Sofia Stock Exchange, October and

November are characterized by the highest average instability of the stock exchange index Sofix (2.02869 and 1.83240, respectively) and the lowest average yield for the reference period.

Table 2. T-test results and its critical values

Stock indexes		N	Mean	Std. Deviation	t	Sig. (2-tailed)
Belex Line	**November**	145	-.2002	.78990	-2.426	.017*
	Other months	1622	-.0411	1.02698		
Monex	**March**	153	-.2678	1.00295	-2.762	.006*
	Other months	1574	-.0439	1.56662		
	November	148	-.3907	1.26192	-3.447	.001*
	Other months	1579	-.0331	1.54549		
	December	157	.2606	2.07453	2.155	.033*
	Other months	1570	-.0962	1.45705		
Crobex	**November**	144	-.3370	1.54284	-2.216	0.28*
	Other months	1603	-.0521	1.38307		
MBI-10	**January**	133	.1785	1.26635	2.586	.011*
	Other months	1585	-.1055	1.32435		
	May	139	.2301	1.37653	2.924	.004*
	Other months	1579	-.1112	1.31371		
	November	144	-.3175	1.45400	-2.108	.037*
	Other months	1574	-.0621	1.30743		
Sofix	**August**	153	.1392	1.28440	2.214	.028*
	Oher months	1581	-.0907	1.43726		
	October	156	-.4158	2.02869	-2.337	.021*
	Oher months	1578	-.0363	1.34754		

Source: Author´s calculation

The table (Table 2.) above illustrates the shortened version of the research results. Due to the large number of tables, only statistically significant results are shown. The obtained p-value results for the stock index BelexLine of .017 (> α = 0.05) indicated that the month of November in the reporting period from

2008 to 2014 gained yields much lower but statistically significant than other months, and therefore a negative effectwas recorded in November for BSE. On the Montenegro Stock Exchange, the achieved p-values in November and March in of .006 and .001 (<α = 0.05), indicate that these calendar months in the observed period, yields were significantly lower than in other months, so negative effects of these months were displayed. The obtained p-value of .033 (> α = 0.05) indicated that the month of December in the reporting period from 2008 to 2014 documented yields significantly higher than other months,and therefore a positive effect for month December was recorded on Montenegro Stock Exchange index Monex. P-value results for the Zagreb Stock Exchange in the amount of 028 (<α = 0.05) indicated that in the month of November in the observed period, yields were significantly lower than in other months, so for the period from 2008 to 2014 a negative effect was recorded for the month November. The obtained p-values for MBI-10 (<α = 0.05) indicated that the month of January, May and November in the observed period recorded yields significantly higher or lower than other months, depending on the sign. Results for p-values (<α = 0.05) for stock index Sofix indicate that August shown positive effects of calendar anomalies, while the month of October is characterized by a statistically significant negative effect. The results of T-test applied to Sasx stock index at the Sarajevo Stock Exchange and the stock exchange index Birs at the Banja Luka Stock Exchange indicate that during the observed period there were not statistically significant month effects, i.e. critical values are greater than 0.05 and the null hypothesis, H0 is accepted. However, should be especially careful when interpreting the results in Bosnia and Herzegovina. While testing the unit root, the time series for the observed stock market indexes, especially for the stock index of Banja Luka Stock Exchange - Birs, show stationarity on the first level and the statistical properties of the yield does not change over time which is the result of small-scale traffic on the observed stock exchange. Therefore, the testing is not statistically significant using only this stock exchange index. The results at the Bucharest Stock Exchange for the p-values (> α = 0.05) indicate that no month in the reporting period recorded yields significantly higher or lower than other months, so that in the period from 2008 to 2014, no month effects were recorded for the stock Exchange index BET, which is consistent with previous studies (Dim, B. and Milos, LR, 2009, Diacanosu, DE, Mehdian, S. and Stoica, O, 2012) and the null hypothesis H0 can be accepted.

The results of the analysis of stock market indexes in selected countries in the region, presented in the table, indicate that the stock markets in Macedonia, Montenegro, Bulgaria, Serbia and Croatia are inefficient. Analysis of the results also shows that the financial stock exchange in Romania proved to be commercially effective, since that there was no evidence of statistically significant anomalies. These results are not surprising if one takes into

account that many analysts investigated calendar anomalies in the developed, middle-developed and emerging capital markets and mostly they came to the same conclusions.

Table 3. Summary overview of statistically significant month effects on the capital markets in the region

Month	Observed period from 2008. to 2014.
January	Macedonia (+)
February	-
March	Montenegro (-)
April	-
May	Macedonia (+)
June	-
July	-
August	Bulgaria (+)
September	-
October	Bulgaria (-)
November	Serbia (-), Montenegro (-), Croatia (-), Macedonia (-)
December	Montenegro (+)

Source: Author´s calculation

5. Conclusions

According to numerous studies of seasonal impacts, January recorded higher yields than other months. However, in this study, which covers the period of 7 years, it has been proven that the traditional January effect is present only on the stock market in Macedonia. The results of this study support growing literature that indicates January effect does not exist anymore in stock returns (Petel, J.B 2016.). Based on the analysis, other significant effects that are present in the long run on the observed stock exchanges can be observed. The observed stock markets in the region recorded the most negative effect in November. Investors, therefore should pay attention to the fact that the stock markets in Serbia, Montenegro, Croatia and Macedonia recorded negative yields in November so it is not a good time to invest. Macedonian Stock Exchange, in addition to the negative effect in November, also recorded a positive effect in May and January. During the period under observation, Montenegro Stock Exchange, apart from the negative effect in November also record negative effects and in March, while in December it achieved positive effects in yield. The stock market in Bulgaria record a positive effect in August, while the negative effects were present on this stock exchange during the month of October. Investors in a number of capital markets in the countries in the region can not find a specific model that will enable them to achieve above average return rates. Investors on the observed stock

exchanges in the region can take advantage of the time opportunity and buy securities in the months when they achieve a negative yield– buy shares at lower prices and sell them in those months when he recorded a positive yield.

Based on the research conducted and the results obtained, the null hypothesis H0 can be rejected and the alternative hypothesis H1 can be accepted, which confirms the fact that most of the observed capital markets in selected emerging economies are not efficient. The best option for policy makers is to use econometric modelling based on the existing database from the stock markets. In that way, they draw valuable lessonsfor future decicions about economic steps regarding the development of capital markets. This study has some limitations: survey covers only companies listed on observed stock exchanges that compose - make stock indexes, implementation of the model t-test and the survey covers the period from 2008 to 2014.

Future research will focus on anomaly onthe stock markets which is known as the Monday effect. In order to obtain more complex picture of the situation on the capital markets in the countries in the region, follow-up research which deals with the effects of the day should be covered. Furthemore, research should look into the period from 2008 to 2014, as well as the sub-period, the crisis period from 2008 to 2011, and the post-crisis period from 2012 to 2014.

References

Ananzeh, I. E. N. (2014). Testing the weak form of efficient market hypothesis: Empirical evidence from Jordan. *International Business and Management*, 9(2), 119-123.

Asteriou, D., & Kavetsos, G. (2006). Testing for the existence of the 'January effect'in transition economies. *Applied Financial Economics Letters*, 2(6), 375-381.

Balint, C., & Gică, O. (2012). Is the January effect present on the Romanian capital market?. *Procedia-Social and Behavioral Sciences*, 58, 523-532.

Degutis, A., & Novickyte, L. (2014). The efficient market hypothesis: a critical review of literature and methodology. Ekonomika, 93(2), 7.

Diaconasu, D. E., Mehdian, S., & Stoica, O. (2012). An examination of the calendar anomalies in the Romanian stock market. *Procedia Economics and Finance*, 3, 817-822.

Dima, B., & Milos, L. R. (2009). Testing the efficiency market hypothesis for the Romanian stock market. Annales Universitatis Apulensis: Series Oeconomica, 11(1), 402.

Friday, H. S., & Hoang, N. (2015). Seasonality in the Vietnam Stock Index. The International *Journal of Business and Finance Research*, 9(1), 103-112.

Guler, S. (2013). January Effect in Stock Returns: Evidence from Emerging Markets. *Interdisciplinary Journal of Contemporary Research in Business*, 5(4), 641-648.

Patel, J. B. (2015). The January Effect Anomaly Reexamined In Stock Returns. *Journal of Applied Business Research* (JABR), 32(1), 317-324.

Sarpong, B. (2015). Seasonality And January Effect Anomaly on the Ghana Stock Market (Available on Internet) (Master's thesis, Svenska handelshögskolan).

Simbolon, I. P. (2015). January Effect of Stock Returns in Indonesia: The Unconditional Method and the Conditional Method. *International Business Management*, 9(6), 1221-1225.

Šonje, V., Alajbeg, D., & Bubaš, Z. (2011). Efficient market hypothesis: is the Croatian stock market as (in) efficient as the US market. *Financial Theory and Practice*, 35(3), 301-326.