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INVESTORS' REACTIONS FOR SUSTAINABILITY INDEX INCLUSION – IS CSR A GOOD NEWS?¹

1. INTRODUCTION

The aim of this paper is to analyse the investors' perception of CSR activities of public companies. In order to test whether investors reward or penalize public companies for CSR activities the research on their inclusion in European Sustainability indices will be conducted. The major assumption of the study is that European sustainability stock indexes are appropriate indicators for corporate environmental and social activities, corporate sustainability performance, or corporate social responsibility (CSR). Under this assumption several empirical research on CSR effectiveness was conducted on globally recognized indexes, such as Dow Jones STOXX Sustainability Index or the Dow Jones Sustainability World Index (DJSI World) [e.g. Consolandi et al. 2009: 185–197; Cheung 2011: 145–165]. Voluntary activities of a firm related to the Corporate Social Responsibility such as protection of the natural environment or compliance with social and ethical norms could be perceived by investors as beneficial for the company, therefore having positive impact for its financial performance. On the other hand poor environmental or social performance can have negative financial consequences. That issue has been of vital interest for corporate management for a long time, as well as for public policy and investors.

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If corporate environmental or social activities are rewarded, while bad sustainability performance is penalized, it can be argued that the public support of information-based mechanisms and institutional regulations on implementing CSR strategies are promising. From the investors' perspective the question is whether socially responsible investing (SRI), also called ethical or sustainable investing, which refers to the practice of choosing stocks on the basis of environmental, social, and ethical screens, is rewarded or penalized by the stock market. From the companies perspective the question is whether the efforts and costs incurred for CSR activities are positively or negatively reflected in the shares prices. The high relevance of this question is witnessed by the increase of SRI investments worldwide by over 300% between 1995 and 2007 and the fact that in the US already one tenth of all assets under management is invested in SRI funds [e.g., Social Investment Forum, 2007]. It is also worth noting that there is increasing interest of companies in CSR reporting, the most recognizable being Global Reporting Initiative. Research conducted by KPMG in 2008 indicated that 79% of global 250 companies disclose ESG (Environmental, Social and Governance) data and 77% of those use GRI to do so. A new phenomenon is that ten governments have a formal reference to GRI in their governmental corporate responsibility guidance documents and/or policies [GRI R&D report, 2010].

Therefore authors put into question the issue of growing recognition and institutional support in sustainability and CSR activities by testing financial effectiveness of them. Financial effectiveness is approximated by stock performance and the reaction of investors on inclusion in sustainability indices. The contribution of this article is to check what is the impact of CSR index inclusion on the stock performance of companies included in European index such as STOXX Europe Sustainability Index (derived from the STOXX Europe 600 Index) and RESPECT Index (created by Warsaw Stock Exchange covering Polish stocks) on Central Eastern European companies.

The second contribution of our paper is to extend the sustainability or socially responsible investment literature and make an attempt to support one of the lines of argumentation about positive or negative perception of sustainability index inclusion by investors. The way investors react when stocks are added or deleted to a sustainability index can provide an indication as to how and whether investors value „sustainability”. Although there is now a significant body of literature on this topic, there is no clear agreement yet as to how investors are rewarded with regard to their investment in sustainable companies.

The structure of the paper is as follows: section 2 delivers arguments for significance of the undertaken topic and shows the detailed contribution of the paper. Section 3 presents discussion about scope of CSR and on the basis of

theoretical considerations, it develops the hypotheses for our empirical analysis. Section 4 presents our event study approach, data used and empirical results and section 5 concludes.

2. SIGNIFICANCE AND CONTRIBUTION

The question of how investors react to addition and deletion of stocks from a sustainability index is important and interesting as there is now a heightened interest in sustainability among investors or in the so-called socially responsible investing. At present, there is a worldwide movement toward socially responsible investing, supported by such international organizations as the United Nations Principles for Responsible Investment (UN PRI), United Nations Environment Program for Financial Institutions (UNEP FI), Carbon Disclosure Project, among others. Furthermore, there is now a very significant amount of investment in sustainable firms. Socially Responsible Investment (SRI) has grown very substantially over the last 10 years. SRI assets are worth at least US\$3.74 trillion in the United States, as reported by USSIF – The Forum for Sustainable and Responsible Investment [2013].

According to Eurosif report on SRI at the end of 2011 assets were valued at €6.76 trillion, with France being the leading market with assets worth €1.88 trillion and UK – €1.24 trillion. And Poland being the smallest, but rapidly growing market with assets worth €1.174 billion.

Sustainable and responsible investing on capital markets enjoys support from public authorities who aim to ensure an optimal social level of mitigation of systemic sustainability-related risks. For example, as of April 2011, over 850 investment institutions with assets under management of approximately US\$ 25 trillion have become signatories of the principles of responsible investment (PRI), an institutional investor initiative under the auspices of the United Nations [UNPRI, 2011; SAM and PwC, 2010], and as reported on the main web page the number of signatories has grown in May 2013 to 1195 institutions.

Two major studies explore the reaction of stock markets to inclusion and deletion announcements of companies in sustainability indices. They show contradictory results. Consolandi et al. [2009: 185–197] explore the reaction of European stock markets to index addition and deletion announcement of the Dow Jones Sustainability STOXX Index (DJSSI). They show that a sizeable positive reaction is detectable in the case of additions, and a slightly bigger negative reaction in the case of deletions. On the other hand, Cheung [2011: 145–165] examines the reaction of American stock markets to similar announcements of index additions and deletions to the Dow Jones Sustainability World Index (DJSWI). This study finds that on the day of change, index addition (deletion)

stocks experience a significant but temporary increase (decrease) in return, with index addition stocks registering a higher increase than index deletion stocks.

Third study explores the region specific reaction of stocks market on the basis of impact on returns, risk and liquidity of stocks in the Asia Pacific markets when included into and deleted from the Dow Jones Sustainability World Index. The results show that sustainability matters to Asia Pacific investors but in negative way [Cheung and Roca 2013: 51–65].

These papers, when viewed together, suggest that the impact of sustainability seems to be region-specific and inconclusive.

As a result, the need for a research performed on Central Eastern European market is important for three reasons:

1) The meager supply of capital on local capital market stresses the importance of financial consequences of CSR actions rather than its social impact. That is why the impact of CSR on the cost side of companies' activity will be perceived as more important.

2) CSR sensitive investors are playing a minor role on the market. A relatively small sum of CSR assets on the market could be a result of a lower demand. Therefore the CSR index change is perceived as less important and consequently less recognized.

3) The members of European Union are obligated to meet the requirements concerning selected CSR activities and the CSR information disclosure to capital markets. For that reason the companies not only anticipate but are way ahead of investors' CSR expectations.

The contribution of this article is to check what is the impact of CSR index inclusion on the stock performance of companies included in European index such as STOXX Europe Sustainability Index (derived from the STOXX Europe 600 Index) and RESPECT Index (created by Warsaw Stock Exchange covering Polish stocks) on Central Eastern European companies.

This leaves an important gap in the literature for testing the relationship on less recognizable indices, already established and with decent history as well as on a local ground (Poland), the newly introduced index, on emerging European market. On the other hand the stock's included in STOXX gets the attention of greater number and consequently economic impact of CSR sensitive investors. Studies focused on the US and Europe, as well as Asia Pacific, but they were conducted on well recognized indices.

The second contribution of our paper is to extend the sustainability or socially responsible investment literature and make an attempt to support one of the lines of argumentation about positive or negative perception of sustainability index inclusion by investors. The way investors react when stocks are added or deleted to a sustainability index can provide an indication as to how and whether investors value „sustainability”. Although there is now a significant body of literature on this topic, there is no clear agreement yet as to how investors are

rewarded with regard to their investment in sustainable companies. In the US and Europe, there is evidence that investors in SRI are rewarded more than those in conventional investments. However, in Asia, some studies have yielded results showing that investors in sustainable firms are penalized [Renneboog et al. 2008b: 302–322; Cheung and Roca 2013: 51–65].

3. LITERATURE OVERVIEW

3.1. Definition of CSR

One of the most common definitions of CSR was developed in 1980s by Norwegian Prime Minister Gro Harlem Brundtland and it is used by the World Business Council for Sustainable Development: „Meeting the needs of the present without compromising the ability of future generations to meet their own needs”. Out of this definition derives the emphasis on the fact that every company needs permission and admission from governments, communities and other stakeholders to do business.

Proponents of CSR, according to Porter and Kramer [2006: 42–56] use four arguments to make the concept eligible: sustainability, moral obligation, license to operate and reputation.

Sustainability is reflected in triple bottom line of economic, social and environmental performance. According to which companies should operate in ways that secure long-term economic performance by avoiding short term behavior that is socially detrimental or environmentally wasteful. Moral obligation is understood as the duty of companies to be good citizens for example by operating within the law, honestly filing financial statements. License to operate is the most pragmatic approach out of the four mentioned. Companies identify and choose only those social issues that matter for their stakeholders and make decisions about them. Reputation argument is used by companies to justify CSR activities as those which will improve company's image, strengthen its brand and enliven morale [Porter and Kramer 2006: 42–56].

The problem of those arguments for CSR *modus operandi* is that they focus on the tensions between business and society rather than on their interdependence. According to the course of argumentation of Heal (2005) CSR can play an important role in foreseeing environmental conflicts and distributional conflicts. Definition presented in that work describes CSR as taking actions which reduce the extent of externalized costs or avoid distributional conflicts. It confirms the contradiction approach of business towards society rather than interdependence. The consequence of such fragmentation is that companies are taking numerous actions connected with CSR concept, but these are not tied to the strategy and operations of a specific company or the place it operates in.

Additionally it has to be noticed that recent studies indicate that investors are searching for reliable information about CSR performance through public or private channels, they also actively utilize the information in their investment decisions [e.g., CICA 2010; Cohen et al. 2011: 109–129; Cruise 2011]. This can initially indicate that reaction of investors for CSR index inclusion could be noticeable.

Despite the fact that there is growing interest among companies in undertaking CSR activities along with socially responsible reporting, taking part in CSR rankings and scorings it seems that most of the companies do not have a clear picture about how to combine maintaining leading places in scorings and rankings and obtain positive impact of CSR activities for value creation (either reflected in stock prices or financial performance). As the following part of the paper will show there are mixed results concerning how investors perceive CSR activities undertaken by public companies.

Leaving the individual perspective in order to perform studies leading to general conclusions about CSR effectiveness and investors perspective brings us to approximations. We approximate that European sustainability stock indices are appropriate indicators for corporate environmental and social activities, corporate sustainability performance, or corporate social responsibility (CSR). Following the example of this approximation in studies conducted for example on the basis of Dow Jones Sustainability World Index (DJSWI). We assume that it is the best available option of measuring effectiveness of CSR activities although there is an ongoing discussion questioning the quality and representativeness of available CSR ratings (including ratings conducted for the purposes of SI indices construction).

Measuring and publicizing social performance is a powerful tool to potentially influence corporate behavior, but it can only be done under the assumption that ratings are consistently measured and accurately reflect corporate social impact. And it is not only about the criteria chosen for analysis but also the weights appointed to certain types of performance (economic for example) and how it is judged whether the criteria have been met.

There also exists the risk of ratings being constructed on the basis of unreliable data. Most ratings rely on surveys whose response rates are statistically insignificant, as well as on self-reported company data that have not been verified externally [Porter and Kramer 2006: 18]².

It has also been noted that process of composition of sustainability stock indexes has not been standardized, yet. For example, Ziegler and Schroder [2010: 848–856] show that relatively high numbers of companies in the DJ STOXX 600 and the DJ World Index are not evaluated, therefore these firms cannot be included in DJSI STOXX or DJSI World, irrespective of their socially responsible performance.

² More about CSR ratings problems in: Chatterij and Levine [2005].

3.2. Sustainability index inclusion literature overview and construction of hypotheses

Empirical analysis of the relationship between corporate sustainability performance and financial performance tests two different theoretical perspectives. One is resulting from shareholder wealth creation concept or traditional economists claim that production is optimally determined by profit maximization which suggests a negative relation [e.g. Telle 2006: 195–220] and second one is corresponding with stakeholder value maximization view which suggests a positive relation [Porter and Kramer 2006: 42–56].

One argument for a positive effect of corporate sustainability performance on financial performance is based on neoclassical microeconomics. It suggests that governments do not fully resolve all problems with external effects and that competitive markets are not efficient. It dates back to one of the first works on defining market failures [Bator 1958: 351–379]. It reflects the assertion according to which market fails when acting upon private interests leads to ineffective results, and it can be improved by actions including social interests.

Therefore, corporate environmental and social activities can substitute missing markets (and thus missing regulations) if external costs arise from them and can reduce conflicts between firms and stakeholder groups, such as the government, the general public, non-governmental organizations, competitors, employees, or clients. It can therefore be financially beneficial to engage in environmental and social activities because otherwise these stakeholders could withdraw the support for the firm. Therefore CSR can play an important role in foreseeing environmental conflicts and distributional conflicts [Heal 2005: 387–409]. Which could protect the company from facing those conflicts and mitigate their escalation if they appear.

It is claimed that, financially, investors will be better rewarded investing in sustainable or socially responsible companies as these firms will have better financial performance since they represent well-managed firms and are less risky [Renneboog et al. 2008a: 1723–1742]. These firms also connect better with their different stakeholders, which can translate into more revenues, lower expenses and less risk [Renneboog et al. 2008b: 302–322].

In summary, this leads to the following hypothesis that represents the aforementioned literature review:

Hypothesis 1a: The inclusion in a sustainability stock index has a positive effect on stock performance.

The second theory states that activities aimed at increasing corporate sustainability performance can also be considered nonproductive and thus only serve societal goals (e.g., environmental protection). It has been argued that CSR is expensive and demands significant portions of corporate financial resources, although benefits of CSR can be reaped only in the distant future if at all. It can

be stated that inclusion in sustainability stock indexes and its corresponding environmental and social activities may lead to additional costs, which are not directly productive, so that weaker positive or even negative impacts on financial success are possible. This argumentation is in line with the traditional view in neoclassical microeconomics.

From the perspective of modern portfolio theory investing in stocks of companies involved in CSR may be inconsistent. The modern portfolio theory states that diversification reduces risk and maximizes long term returns. Putting additional constraint on a portfolio due to the SRI screening process will reduce the investment universe, therefore it will lead to a reduction in risk-adjusted return. Results of Ortas et al. [2010: 104–129] research on Spanish market show that there are significant differences in the risk-adjusted returns achieved by the two equity indexes analyzed, the FTSE4Good-IBEX under-performing its benchmark (IBEX35). Research results of Cheung and Roca [2013: 51–65] indicate, on the basis of event study on inclusion of Asia Pacific companies do DJSI World index, that sustainability matters to Asia Pacific investors but in negative way.

It is also argued that investors will be less financially compensated with CSR firms because these firms can get distracted by adopting additional goals which can then lead to a negative impact on their profitability [Aupperle et al. 1985: 446–463].

In summary, this leads to the following competing hypothesis that represents the aforementioned traditionalist view:

Hypothesis 1b: The inclusion in a sustainability stock index has a negative effect on stock performance.

It has to be noticed that both hypotheses are constructed on the basis of crucial assumption that the inclusion in sustainability stock indexes is a reliable signal for higher intensity of environmental and social activities and in the same time that sustainability stock indexes are appropriate indicators for corporate environmental and social activities, corporate sustainability performance, or corporate social responsibility (CSR) [e.g. Heal 2005: 387–409; Consolandi et al. 2009: 185–197].

4. METHODOLOGICAL APPROACH AND DATA

This paper empirically analyzes the effect of the inclusion of companies in the sustainability indices on their stock performance. In order to test the effect on European markets in regional and local scope the research was conducted on STOXX Europe Sustainability Index (derived from the STOXX Europe 600 Index) and RESPECT Index (created by Warsaw Stock Exchange covering Polish stocks).

STOXX Europe Sustainability Index covers about 20% of the components of the STOXX Europe 600 Index, with the components being selected according to a systematic corporate sustainability assessment (positive screening criterion, variable number of companies in the index). The index is reviewed quarterly and weighted using free float market capitalization. It covers companies from: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom. RESPECT index was created in 2009 as the first CSR index in the CEE (Central-Eastern Europe) and covers all the companies listed on the Warsaw Stock Exchange excluding the New Connect market and dual-listed or foreign companies. It is being revised semiannually, using positive screening criteria, on co-operation with the projects Partner – Deloitte. Polish stock exchange could be taken as a good representative of Central Eastern European stock exchanges due to the fact that it is the biggest market in the region (with capitalization of approx. €181 billion).

The sample analyzed covers 107 inclusions to the STOXX index between 2005–2010 and 33 inclusions to the RESPECT index between 2009–2012 (including the period of the initial launch of the index). The method chosen to quantify the effect is the event studies analysis, which measures abnormal returns around the day of the event imposed by its occurrence. The day 0 (the event day) chosen was the day of the inclusion of the particular company's stock to the CSR index.

Abnormal returns in the event window were calculated separately for each company (observation) using estimates of coefficients of dummy variables:

$$R_{it} = \beta_{i0} + \beta_{i1}M_{it} + \beta_{iD}D_{it} + \varepsilon_{it} \quad i = (1, \dots, n) \quad (1)$$

where:

- n – number of companies in the sample,
- β_{i0} – coefficients in the model,
- M_{it} – rates of return of market portfolio,
- D_{it} – dummy variables.

The dummy variables equal 1 in the particular day in the event window and 0 otherwise. To obtain the average effect for each particular day the average of the coefficients was calculated. The rates of return of the market portfolio were proxied using returns from broad market indexes (STOXX Europe 600 Index and WIG Index respectively).

In order to test statistical significance of the pooled coefficients conventional Z-statistic was used:

$$Z = \frac{\sum_{i=1}^N t_i}{\sqrt{N}} \quad (2)$$

where:

t_i – T-statistic for coefficient β_{iD} .

For the RESPECT Index sample, due to low number of observations statistical significance of the abnormal returns was tested using bootstrap methods for both separate and joint impact of particular days effect in the event window [Kramer 2001: 109–132].

Additionally the risk profiles before and after the inclusion were analyzed. Three measures were chosen to show the induced change: the β coefficient obtained from the market model, the R^2 of the model and the Pearson coefficient between the rates of return of the stock and rates of return from the market portfolio (proxied using respective broad market indexes).

The results of event study analysis of inclusion to STOXX Europe Sustainability index are presented in table 1. The horizon of an analysis captures both announcement day (day-3) and inclusion day (day 0) as well as the subsequent short-term stock performance.

Table 1

Abnormal returns around the inclusion to STOXX Europe Sustainability index

Day	Average	Mediana	Max	Min	>0	<0
-4	0.01%	-0.04%	3.70%	-3.17%	52	55
-3	-0.75%**	-0.46%	4.17%	-6.12%	28	79
-2	0.20%	0.06%	4.30%	-5.88%	55	52
-1	0.30%	0.34%	3.85%	-4.68%	63	44
0	0.57%*	0.45%	6.31%	-2.90%	74	33
1	0.00%	-0.04%	9.21%	-4.34%	52	55
2	-0.36%	-0.45%	5.78%	-4.03%	37	70
3	-0.28%	-0.19%	4.66%	-4.62%	45	62
4	0.32%	0.06%	5.38%	-3.32%	55	52
5	0.18%	0.07%	3.98%	-3.00%	62	45

Note: * significant at 10% confidence level, ** significant at 5% confidence level

Source: Authors' work.

The descriptive statistics of abnormal returns presented in the table above show the statistically significant results in the announcement day and in the day of inclusion. On average the announcement of inclusion to CSR index is perceived

negatively (-0.75%). Majority of companies (73.8%) realized negative abnormal returns. The minimal abnormal returns is observed in the announcement day.

On the other hand, the reverse reaction is observed during the inclusion day. For a similar number of companies (69.16%) the investor's reaction is positive. Furthermore, it results in the average return equal to 0.57%. The maximum return in analysis period was observed in the inclusion day.

The combined effect of the announcement and the inclusion effect is almost value neutral. The subsequent short-term stock performance is close to zero as well. Consequently, the short-term reaction to stock inclusion in CSR index is not will gives no substantial cumulative abnormal returns to investors. The long-term stocks performance is presented on the exhibit 1.

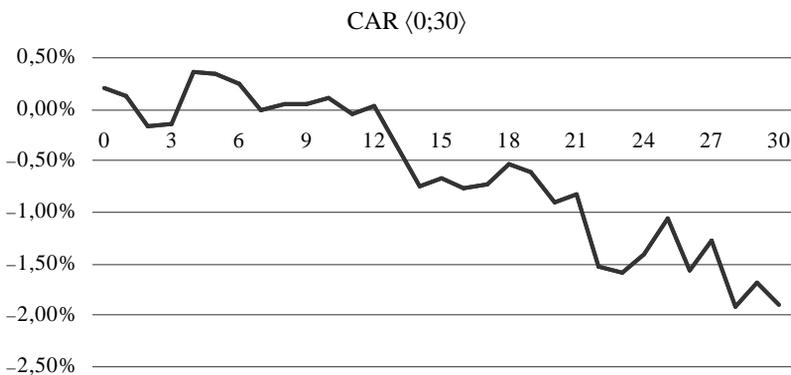


Exhibit 1. Cumulative abnormal returns for STOXX Europe Sustainability index inclusion
Source: Authors' work.

On average the cumulative abnormal rate of return is negative but not smaller than 2.0%. However in first two weeks after the inclusion the cumulative abnormal rate of return is close to zero. It is difficult to come to the conclusion that stock inclusion triggers the persistent decline in the market performance of companies' stock.

Next, the changes in companies' risk profiles are analyzed. The inclusion to CSR index could change the risk profile of companies – their exposure to market risk. The table 2 present the risk profiles of stocks included in Pan-European sustainability index.

The stock inclusion may be not perceived as an event which changes the exposure to market risk. The changes, although statistically significant, cause minor drop in the market exposure to market risk. Since the Pearson coefficient is the almost the same, the change in market risk is caused by the lower standard deviation of returns.

Table 2

The change in risk profiles of companies included in STOXX Europe Sustainability index

	Average	Median	Max	Min
Beta before inclusion	1.04	1.03	2.22	-0.01
Beta after inclusion	0.99*	0.94	2.24	-0.21
R2 before inclusion	31.2%	32.36%	68.08%	3.26%
R2 after inclusion	28.7%	24.52%	70.62%	-6.68%
Pearson coeff. before inclusion	0.543	0.5712	0.8256	0.2451
Pearson coeff. after inclusion	0.547	0.5345	0.8528	0.1873

Note: * significant at 10% confidence level.

Source: Authors' work.

Table 3

Abnormal returns around the inclusion to RESPECT index

Days	Average	Median	Max	Min	>0	<0
-10	0.04%	-0.26%	3.92%	-3.40%	14	19
-9	0.02%	-0.11%	3.11%	-3.69%	16	17
-8	0.08%	0.25%	2.37%	-3.48%	18	19
-7	0.36%	0.06%	3.15%	-3.25%	17	16
-6	0.02%	-0.22%	5.18%	-4.51%	12	21
-5	0.17%	0.33%	4.09%	-2.78%	18	15
-4	0.39%	0.23%	5.23%	-2.21%	20	13
-3	-0.64%**	-0.76%	2.78%	-4.31%	11	22
-2	-0.45%	-0.29%	2.06%	-4.59%	14	19
-1	-0.33%	-0.26%	3.62%	-5.45%	13	20
0	0.54%*	0.09%	9.42%	-3.38%	18	15
1	0.00%	0.31%	2.13%	-5.62%	19	14
2	0.08%	0.11%	3.13%	-5.38%	22	11
3	-0.50%*	0.13%	2.74%	-9.09%	18	15
4	0.31%	0.33%	8.55%	-5.10%	19	14
5	-0.15%	0.11%	8.90%	-10.07%	17	14
6	-0.63%**	-0.48%	3.26%	-7.85%	12	21
7	0.06%	-0.18%	5.71%	-4.72%	15	18
8	0.02%	0.19%	5.17%	-6.76%	19	14
9	0.87%**	-0.11%	12.92%	-3.81%	15	18
10	0.76%**	0.17%	6.27%	-2.01%	19	14

Note: * significant at 10% confidence level, ** significant at 5% confidence level.

Source: Authors' work.

The results of event study analysis on Warsaw Stock Exchange are presented in table 3. The horizon of an analysis is 10 days around the day of the inclusion into the index, alternative research was conducted using the day of the announcement as the day 0 (inclusion is announced 8 days before the actual inclusion)³.

The analysis performed on each separate day gives inconclusive results. The abnormal returns are not statistically significant. However, while using the bootstrap method to change the significance of results in specified time frame the three day performance prior the inclusion shows the drop in abnormal returns (-1.41%).

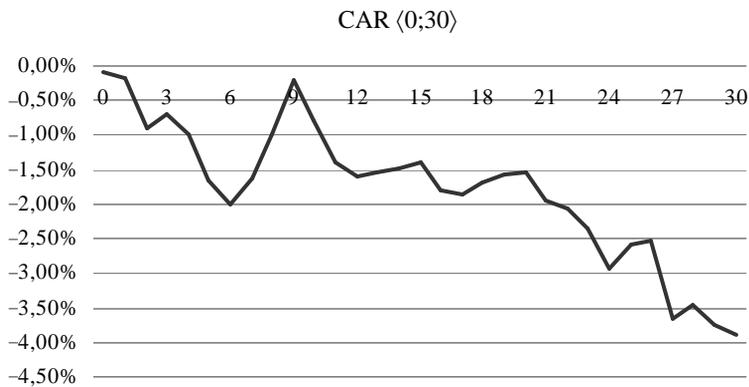


Exhibit 2. Cumulative abnormal returns for RESPECT index inclusion

Source: Authors' work.

The extended analysis of stock performance shows that in the next seven days after the inclusion the cumulative abnormal returns reaches around the 3.41%. In thirty trading days after the inclusion the cumulative abnormal returns reaches the level 5.32%. The drop in stock price could be perceived as the start of the negative trend in stock performance.

The risk profile for companies listed on CEE market changes because of increased correlation between stocks and the market. The stock inclusion, in case of companies from RESPECT index, is perceived as an event slightly increasing the exposure to market risk. The changes, although statistically insignificant, cause minor increase in the market exposure to market risk. Since the Pearson coefficient is higher, the change in market risk is caused by the higher standard deviation of returns.

³ Presented results are conducted using day of inclusion as day 0, additional results can be available upon authors' request.

Table 4

The change in risk profiles of companies included in RESPECT index

	Average	Median	Max	Min
Beta before inclusion	0.70	0.64	1.55	-0.07
Beta after inclusion	0.85	0.78	1.54	0.12
Pearson coeff. before inclusion	0.41	0.34	0.81	-0.03
Pearson coeff. after inclusion	0.51	0.47	0.82	0.11
R2 before inclusion	0.21	0.12	0.66	0.00
R2 after inclusion	0.29	0.22	0.68	0.01

Source: Authors' work.

5. RESULTS

Our empirical analysis implies that stock markets may penalize the announcement of CSR index inclusion. This result is mainly driven by the negative effect of the announcement of inclusion in the STOXX Europe Sustainability Index. While we do not find significant average cumulative abnormal returns for the inclusion in the RESPECT, the inclusion in the STOXX Europe Sustainability Index leads to negative impacts. It was proven that the short-term reaction was very similar on each market. The reaction to announcement of CSR index inclusion was slightly negative, but this effect was offset by the opposite reaction in the day of inclusion. The total reaction in the seven days event window was close to zero. However, the long-term reaction measured in 30 trading days window was negative for two markets, but the local market investors show more discontent. Additionally, the risk profile for companies listed on CEE market changes because of increased correlation between stocks and the market. Although the initial impact may be seen as mixed, with slight dominance of negative abnormal returns, the long term trend shows accumulation of negative abnormal returns.

Additionally, the risk profile for companies listed on CEE market changes because of increased correlation between stocks and the market.

We assumed that inclusion in STOXX or RESPECT index is a reliable indicator of sustainability performance. Under this condition we could conclude about the investors perception of CSR activities of companies.

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INVESTORS' REACTIONS FOR SUSTAINABILITY INDEX INCLUSION – IS CSR A GOOD NEWS?

This article presents the problem of measuring the impact of information disclosure about CSR activities on stock performance. The research was performed on two indexes which represent Pan-European capital market and local Central and Eastern European capital market. Different market characteristics could limit the application of results presented in numerous studies performed on well-established markets. The information with relatively strong signal for investor is the inclusion to CSR index. In order to measure the investors' reaction the event study analysis was performed. It was proved that the short-term reaction was very similar on each market. The reaction to announcement of CSR index inclusion was slightly negative, but this effect was offset by the opposite reaction in the day of inclusion. The total reaction in the seven days event window was close to zero. However, the long-term reaction measured in 30 trading days window was negative for two markets, but the local market investors show more discontent.

REAKCJA INWESTORÓW NA WŁĄCZENIE DO INDEKSU ZRÓWNOWAŻONEGO ROZWOJU – CZY CSR TO DOBRA WIADOMOŚĆ?

Artykuł prezentuje problem pomiaru wpływu ujawnienia informacji o aktywnościach związanych z CSR na wyniki giełdowe spółek. Badanie zostało przeprowadzone na dwóch indeksach zrównoważonego rozwoju reprezentujących europejski rynek kapitałowy oraz lokalny rynek Europy centralnej i wschodniej. Specyficzne cechy poszczególnych rynków kapitałowych mogą ograniczać zastosowanie wyników wielu badań prowadzonych na rozwiniętych rynkach kapitałowych do analizy rynków Europy centralnej i wschodniej. Informacja będąca relatywnie silnym sygnałem dla inwestora to włączenie do indeksu typu CSR. W celu zbadania reakcji inwestorów została wykorzystana metoda analizy zdarzeń. Wyniki badań wskazują, że krótkoterminowa reakcja była zbliżona na wszystkich badanych rynkach. Reakcja na ogłoszenie informacji o włączeniu spółki do indeksu była minimalnie negatywna, ale efekt ten zniósł się poprzez pozytywną reakcję w samym dniu włączenia spółki do indeksu. Łączna reakcja w siedmiodniowym oknie była bliska zeru, natomiast w długim 30-dniowym terminie zaobserwowano negatywną reakcję dla obu badanych indeksów. Przy czym dla polskiego rynku reakcja była silniej negatywna

JEL classification codes: Q56, G14, M14.