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INCLUSION A COMPANY TO RESPONSIBLE INDEX IN POLAND – MARKET REACTION

Janusz Reichel, Agata Rudnicka, Błażej Socha, Dariusz Urban and Łukasz Florczak
Faculty of Management, University of Łódź
ul. Matejki 22/26, Łódź, Poland

jreichel@uni.lodz.pl

Abstract:

Current development of corporate social responsibility concept and practice caused that investors pay more and more attention to social and environmental aspects while building their investment portfolio. This triggered a growth of socially responsible investment market and socially responsible stock indexes where companies that meet certain criteria related to CSR are listed. The Respect Index is the example of such indexes from Poland.

The main goal of the presented paper is to check how the market reacts on an announcement about an inclusion of a company to the Respect Index. The Respect Index and the relatively young socially responsible investment market in Poland delivers a unique chance to explore described processes in a country with economy just two decades after the transition. We can observe whether few years only since the launch of the responsible index on Warsaw Stock Exchange have allowed Polish investors to learn this new market and react on new opportunities it creates.

Keywords: Corporate Social Responsibility, Socially Responsible Investment, socially responsible stock indexes, Respect Index, Poland.

Introduction

Creation of responsible indexes for listed companies around the Globe is one of the sign that the concern about social responsibility is rising. Enterprises regardless their size and areas of activities declare the interest in developing responsible management approach. It results in many different initiatives that try to create possibilities to reward the organizations that have made effort to implement the concept of Corporate Social Responsibility (CSR).

One of the most current definitions of CSR describe it as "the responsibility of enterprises for their impacts on society" (COM(2011) 681 final: 6). The very similar definition was introduced in the *Guidance on Social Responsibility ISO 26000* where CSR is understood as "a responsibility of an organization for the impacts of its decisions and activities on society and the environment" (ISO 26000:2010). According to the previous definition by the European Commission (COM(2001) 366 final: 6) it was treated as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis". The concept of CSR does not have its long tradition comparing to other managerial theories but one can observe the evolution of its definitional construct. In the past different definitions referred for example to: the obligation that managers have to the society, environmental responsibility, stakeholder relationship management, input to the sustainable development, strategy of enterprise etc. (e.g. Dahlsrud 2008, Freeman 1987, Carroll 1987, Carroll 1999, Lee 2008).

There are many different models that try to describe the concept of corporate social responsibility in the context of enterprise management. The most recognized and discussed model is developed by the a.b. Carroll who treated CSR as four coexisting spheres of responsibility: economic, legal, ethical and philanthropic. He improved his model and presented it as a three dimensional one related to the corporate performance (Carroll 1979). Other well-known models that try to correlate CSR with organizational performance were also introduced (see: Wartick and Cochran 1985, Wood 1991). Nowadays in the era or information and social media development the model of CSR 2.0 is also discussed (see: Visser 2011 or Visser 2010). The attention here is put on more interactive relations with interested parties and the scale of impact that the taken actions have on them. Some authors distinguish many forms of CSR: corporate social responsibility, corporate social responsiveness or corporate social rectitude which put attention on different aspects of relation between enterprises and stakeholders (e.g. Frederic 1994).

The interpretations of CSR vary. Some authors focus on voluntary involvement of business, personal motives of managers, ethical roots, stakeholders management or strategic dimension strictly related to managerial system of organization (Bowen 1953, Donaldson and Preston 1995, Lantos 2001, Moir 2001, Galbreath 2009, Jamali 2008, Freeman *et al*. 2010). Hence the scope of activities and their recipients may differ significantly from one-off philanthropic projects addressed to local community, ecological problem solving actions, events aimed at improving occupational health of employees, social marketing actions that involve customers, projects that support sustainability or improvement of ethical infrastructure of the organization and many others.

CSR project are not only evaluated by the stakeholders who are affected but also by the whole market environment. Investors pay more and more attention to social and environmental aspects of business and vote by owned capital on companies that take those aspects into account in their strategies. This caused a growth of so called Socially Responsible Investment (SRI) and socially responsible stock indexes. We can even speak of socially responsible investment market. Socially responsible investment "is an alternative investment philosophy and strategy seeks to encourage responsible behaviors, including those supporting positive environmental practices, human rights, religious views or what is perceived to be moral activities (or to avoid what is perceived to be amoral by the SRI society, such as alcohol, tobacco, gambling, firearms, military relations, or pornography)" (Mutual Funds 2013). It is also understood as "an approach to investment that explicitly acknowledges the relevance to the investor of environmental, social and governance factors, and of the long-term health and stability of the market as a whole. It recognizes that the generation of long-term sustainable returns is dependent on stable, well-functioning and well governed social, environmental and economic systems" (PRI 2013). The *Eurosif* managed to proposed the following, relatively short, definition: "any type of investment process that combines investors' financial objectives with their concerns about Environmental, Social and Governance (ESG) issues" (Eurosif 2012: 8).

Companies that meet certain criteria related to CSR are listed on socially responsible stock indexes. Thanks to them specific financial products are developed which enable to invest in a portfolio of these companies. There are some examples of these indexes such as: FTSE4Good series, Johannesburg Stock Exchange Socially Responsible Investment Index (JSE SRI), DAXglobal Sarasin Sustainability Germany Index and the DAXglobal Sarasin Sustainability Switzerland Index, The Istanbul Stock Exchange Sustainability Index (ISE SI), OMX GES Nordic Sustainability Index, Dow Jones Sustainability Index (DJSI), and the Polish one, which is called the Respect Index (RI).

The main goal of presented paper is to make the closer look at the Respect Index and check how the market reacts on an announcement about an inclusion of a company to the Respect Index. Authors were going to verify if the moment of inclusion of a company to the socially responsible index (on the example of the Respect Index) means anything for the financial market – does it react or not?

Researching the Respect Index and SRI market in Poland has a unique value: an exploration how the relatively young SRI market behaves and how growing interest in CSR among companies and society translates to investors choices.

Literature review

The integration of product and financial markets leads to greater interdependence between all economic activities. Transnational corporations' activities should be considered in an international or even global context in which regulation is usually missing or weaker than in the country context (Becchetti and Ciciretti 2009: 1283). That is why nowadays people more and more demand corporations to act in a responsible way and there is a necessity to understand an influence of engaging in socially responsible actions on economic performance of the company. However it is important to remember that issues taken into account when talking about SRI can include not only financial aspects but also religious, ethical and issues arising from well-known corporate scandals (Bartkowiak and Janik 2012: 1214).

There is an assumption that a link between corporate responsibility (CR) of the company and its market results or price of its shares on stock market exists. Although the literature on the subject is quite rich the nature of this link is still discussed. One of the main problems is a possible mutual dependence between company's performance and its CR policy and difficulties with discovering what influences what: good results allow to engage resources in CR policy or responsible policy leads in turn to good results.

There are arguments that implementation of CR improves social, environmental and also economic performance of the company (see for example Fombrun and Shanley 1990). But some authors rise the issue that implementing CR means for the company higher costs which is the straight way to worsening its performance and competitiveness, for example Walley and Whitehead (1994) who deny that win-win strategy always works. Arguments for both positions can be found.

In this light the two options appear: market can 1. award or 2. punish a company which announces its CR activities or which CR activities are broadcasted. The moment of an inclusion to the responsible stock market index and the market reaction for the announcement of that fact can offer an opportunity to find if and how the investors react. This knowledge could be crucial for SRI market. There exist also a third option which stresses an assumption that socially responsible activities are unrelated to financial performance. Literature shows a lot of efforts to explore the nature of links between CR policy of the company and its performance or market response. Below there are the chosen exemplary cases presented.

The article of Mackey *et al.* (2007) focuses on the market consequences of engaging in socially responsible actions. The main conclusion of the article is that investors can find on a market a "product" in the form of opportunity to invest in companies that engage in socially responsible activities (Mackey *et al.* 2007**:** 818, 830). Authors of the paper present a simple model of supply of and demand for opportunities to invest in socially responsible firms. Supply and demand for these investment options determines whether socially responsible activities that reduce the present value of the cash flows are positively or negatively related to the market value of the company.

There are investors that are interested not only in maximizing profit from their investment. If the demand for socially responsible investments created by these investors is greater than the supply of these investment opportunities, “such investments can create economic value for a firm” (Mackey *et al.* 2007: 833). In another case, the unfavorable development of supply and demand could adversely affect the market value of firms that report social involvement activities.

The interesting equilibrium model was also presented by Heinkel, Kraus, and Zechner (2001). It takes into consideration the fact “that social investing can impact a firm’s environmental and other ethical behaviors” (Heinkel *et al.* 2001: 448). “Investors benefiting from higher ESG companies might decrease the demand for low ESG companies, and therefore, it increases the cost of their capital” (Bartkowiak and Janik 2012: 1216).

The Martin *et al.* 2009 in their paper suggests that elements of CSR are potential contributors to shareholder value and both value maximization and CSR can potentially be seen as complementary undertakings (Martin *et al.* 2009: 111). They refer to different researches to link positively better reputation of a firm with better operating performance (Martin *et al.* 2009: 115). CSR is presented as an important factor that helps to develop and maintain the reputation and thus can be perceived by a company as “an opportunity to invest (and create value) in its relationships with all of its important stakeholders” (Martin *et al.* 2009: 117). The reputation as an unique, intangible, difficult to imitate and valuable asset is critical to creation of a competitive advantage of a company – this thesis was stressed for example in the work of Roberts and Dowling (2002).

Becchetti and Ciciretti (2009) examine the impact of CSR on corporate performance from a risk-return perspective using stock market data and a large sample. The study shows, that risk adjusted returns from socially responsible companies are not significantly lower than those of control sample stocks and tend to be less risky (Becchetti and Ciciretti 2009: 1292). Authors suggest, that SR investors are more patient: “most of them are institutional funds with long term-strategies” (Becchetti and Ciciretti 2009: 1290) and “that CSR helps to minimize transaction costs with stakeholders, thereby reducing an important source of corporate risk” (Becchetti and Ciciretti 2009: 1292).

Another example is the paper by Nelling and Webb (2009) in which they examined, using different statistical approaches, the causal relation between corporate social responsibility (CSR – measured by KLD index) and financial performance of more than 600 US firms from 1993 to 2000). Authors tried to explain the “virtuous circle” – if CSR leads to better financial performance, or better financial performance allows to devote more resources to social activities (Nelling and Webb 2009: 198). Standard OLS regression showed link between firm's level of CSR and its financial performance (measured by lagged return on assets and stock return) (Nelling and Webb 2009: 201). Results from fixed effects models suggest that the relationship between CSR and financial performance is not as strong as previously reported – ROA and CSR are still positively related, but "firm's past stock return is no longer a significant determinant of its CSR score" and "the weighted CSR score is no longer a significant predictor of financial performance" (Nelling and Webb 2009: 202)**.** Authors finally suggest that there is no evidence that CSR improves financial performance – "the only aspects of CSR driven by stock market performance is employee relations. If socially responsible activities provides benefits to the firm, they appear to manifest themselves in forms unrelated to financial performance" (Nelling and Webb 2009: 209).

The Aktas *et al.* (2011) founded an interesting way to research the stock market performance of socially responsible investments. According to their work mergers and acquisitions offer a valuable framework for learning how socially responsible targets influence the acquirer's choices. They use Innovest's Intangible Value Assessment (IVA) ratings as a measure of responsible performance of companies. The authors used the event study methodology to search abnormal returns that will show the wealth creation for shareholders as an effect of merger and acquisition decisions. And this way they "can analyze the impact of targets' social and environmental performance on acquirer gains." (Aktas *et al.* 2011: 1753-1754). The main advantage of their approach "is that it avoids endogeneity issues between environmental (and/or social) performance and financial performance" and in the proposed framework, it allow to relate "the financial performance of the acquirer to the environmental performance of the target; these are two different firms" (Aktas *et al.* 2011: 1754). The results confirmed that "SRI is value creating for shareholders within the context of M&A announcements." It means that the acquirer benefits – thanks to higher gains for its shareholders – from better social and environmental performance of the target. This gain is of 0.9% for acquirer shareholders. Although it seems to be not much but "For an acquirer worth $100 million in equity, this represents a dolar gain of $0.9 million." (Aktas *et al.* 2011: 1754).

There are two possibilities of the acquirer's shareholders award in the

M&A framework: 1. *learning from target* ("positive announcement returns imply that the acquirer learns from the target's SRI practices"), 2. *discipline the target* ("positive announcement returns imply that the acquirer may reverse the value destroying SRI activities of the target") (Aktas *et al.* 2011: 1754). According to the detailed results authors founded the support for the first above hypothesis that "that acquirer learns from the target's SRI practices and experiences, and socially responsible investing pays for acquirer shareholders, at least within our M&A framework." (Aktas *et al.* 2011: 1760).

Pätäri *et al.* (2012) presented their research that confirmed the positive association between CSR (firm`s sustainability efforts) and firm performance in the global energy industry. Two groups of firms were analysed. The first sample consists of 60 energy companies included in Dow Jones Sustainability Index (DJSI), and the second sample consists of the 150 biggest companies in the energy industry. Based on several variables, including: growth in net sales, increase in personnel, return on assets, return on invested capital, and year-end market capitalization, it was tested whether firms that are more sustainability-driven differ in terms of performance measures from the companies that are not included in the DJSI. "The empirical analysis finds evidence of positive association between sustainable development and firms` financial performance, especially when performance is measured as the market capitalization value" (Pätäri *et al.* 2012: 317). It was possible thanks to better control of costs and better profit generation by DJSI companies.

Reverte in his article (2012) examined the effect of CSR disclosure quality on one of the main determinants of firm value (cost of equity capital) for a sample of Spanish listed firms. The Author analysed "whether investors reward firms that make higher quality CSR disclosures" (Reverte 2012: 266). As a result a significant negative relationship was found what implies "that the cost of equity capital is an important channel through which the market prices CSR disclosure" specially for those firms operating in environmentally sensitive industries (Reverte 2012: 266).

The majority of the studies that have examined the linkage between CSR and firm performance found the positive association between the two. Many authors used the event study methodology to search abnormal returns that will show the wealth creation for shareholders. Other studies, for example, present analysis whether investors reward firms that make higher quality CSR disclosures.

The Respect Index

Respect Index (RI) is the first responsible index in the Central and Eastern Europe that has been published since 2009 at Warsaw Stock Exchange. It consists of companies managed in a responsible and sustainable way that operate in correspondence with the best standards in broadly defined corporate governance and in relation to environmental and social criteria. In order to reflect changes among operating policy of companies the Respect Index is reconsidered twice a year. The audit consists of three phases. The main aim of the first phase is to identify companies characterized by the highest liquidity that means focusing on 140 companies belonging to the three major indexes at Warsaw Stock Exchange. During the second phase there is conducted an evaluation of corporate governance practices and investor relations at every single company. The third phase focuses on assessment of the company maturity in terms of social responsibility. The results of the audit make up a base for building a list of companies that create Respect Index (Respect Index 2013).

The main objective of the paper by Bartkowiak and Janik (2012) was to analyse effectiveness of sustainable investment. The authors assume that companies included in the Respect Index can be treated as sustainable – this could be a question of further discussion which is not the subject of our article. The paper of Bartkowiak and Janik also include in the separate analysis banks from the Respect Index as well as the assets of the Sustainable Investment Fund SKOK. The main research objective was to check if effectiveness of the companies and banks reflected in the Respect Index and the Investment Fund SKOK is higher or lower than main market indices. To find the answer "the Sharpe ratio was calculated from daily and weekly returns" for four half-year editions of the Respect Index and WIG20 was used as a benchmark (the index of 20 major companies from the Warsaw Stock Exchange) (Bartkowiak and Janik 2012: 1213). The conclusion that matters to our article is that "the effectiveness of the Respect Index was higher than that of WIG20 index" (Bartkowiak and Janik 2012: 1213 and 1221). However an important limitation is that "The results might have a random character or it might be a result of KGHM company (the leader of recent increase) which has a significant representation in the index" (Bartkowiak and Janik 2012: 1223).

Research method

The empirical analysis of this study investigates the relationship between announcement of CR activities and the market reaction for the announcement. We analysed 28 companies from Warsaw Stock Exchange (WSE), included in the Respect Index editions. Two companies (Mondi Świecie and Kredyt Bank) were excluded from our research. The first one, Kredyt Bank, due to merger with BZ WBK and the second Mondi Świecie, due to a withdrawal from WSE. Table 1 summarises companies included in our dataset divided into editions of the RI. Every of the below listed company was analyzed in each edition, in which it participated, what gives together in total 90 events.

Tab. 1. Companies included in the Respect Index editions considered in the research.

	I edition	**II edition**	**III edition**	**IV edition**	**V edition**
1.	Apator S.A.	Barlinek S.A.	Apator S.A.	Apator S.A.	Apator S.A.
2.	Bank BPH S.A.	Bank Handlowy w Warszawie SA	Barlinek SA	Bank BPH S.A.	Bank BPH S.A.
3.	Bank Handlowy w Warszawie SA	Bank Millennium SA	Bank Handlowy w Warszawie SA	Bank Handlowy w Warszawie SA	Bank Handlowy w Warszawie S.A.
4.	Barlinek S.A.	BRE Bank SA	Bank Millennium SA	Bank Millennium SA	Bank Millennium S.A.
5.	Ciech S.A.	Budimex S.A.	BRE Bank SA	Budimex S.A.	Budimex S.A.
6.	Elektrobudowa S.A.	BZ WBK SA	Budimex SA	Ciech SA	Elektrobudowa S.A.
7.	Grupa LOTOS S.A.	Elektrobudowa SA	DM IDMSA	DM IDMSA	Grupa LOTOS S.A.
8.	Grupa Żywiec S.A.	Grupa Lotos SA	Elektrobudowa SA	Elektrobudowa SA	ING Bank Śląski S.A.
9.	ING Bank Śląski SA	ING Bank Śląski SA	Fabryka Farb i Lakierów Śnieżka SA	Grupa Lotos SA	Jastrzębska Spółka Węglowa S.A.
10.	KGHM Polska Miedź SA	KGHM Polska Miedź SA	Grupa Lotos SA	ING Bank Śląski SA	KGHM Polska Miedź S.A.
11.	Polskie Górnictwo Naftowe i Gazownictwo S.A.	Lubelski Węgiel „Bogdanka” S.A.	ING Bank Śląski SA	KGHM Polska Miedź SA	Lubelski Węgiel „Bogdanka” S.A.
12.	Polski Koncern Naftowy ORLEN S.A.	Polskie Górnictwo Naftowe i Gazownictwo S.A.	KGHM Polska Miedź SA	Lubelski Węgiel „Bogdanka” S.A.	Netia S.A.
13.	Telekomunikacja Polska S.A.	Polski Koncern Naftowy ORLEN S.A.	Lubelski Węgiel „Bogdanka” S.A.	Netia SA	Polska Grupa Energetyczna S.A.

14.	Zakłady Azotowe w Tarnowie – Mościcach SA	Telekomunikacja Polska SA	Netia SA	PBG SA	Polski Koncern Naftowy ORLEN S.A.
15.	Zakłady Magnezytowe „ROPCZYCE" S.A.	Zakłady Azotowe w Tarnowie-Mościcach SA	PBG SA	PGE Polska Grupa Energetyczna SA	Polskie Górnictwo Naftowe i Gazownictwo S.A.
16.			PGE Polska Grupa Energetyczna SA	Polskie Górnictwo Naftowe i Gazownictwo S.A.	Powszechny Zakład Ubezpieczeń S.A.
17.			Polskie Górnictwo Naftowe i Gazownictwo S.A.	Polski Koncern Naftowy ORLEN S.A.	Telekomunikacja Polska S.A.
18.			Polski Koncern Naftowy ORLEN S.A.	Powszechny Zakład Ubezpieczeń S.A.	Zakłady Azotowe w Tarnowie -Mościcach S.A.
19.			Telekomunikacja Polska SA	Telekomunikacja Polska SA	Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A.
20.			Zakłady Azotowe w Tarnowie -Mościcach SA	Zakłady Azotowe w Tarnowie -Mościcach SA	
21.				Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A.	

Source: Own elaboration based on Respect Index 2013.

Tab. 2. Number of observations (rates of return).

RI Edition	Daily obs.	Weekly obs.
I	600	120
II	600	120
III	800	160
IV	840	168
V	760	152
Total	3600	720

Source: Own elaboration

To measure reaction of investors we employed data from Stooq web site

(Stooq 2013). To verify hypothesis about the relationship between CSR and value of stock we used event study methodology. First, we collected share prices of each company in every RI edition. Second, we calculated daily and weekly rates of return during the estimation period. Table 2 reports number of observations.

Event study methodology is based on the assumption that a particular event may affect the value of the stock. The hypothesis that (due to CSR announcement) the value of the company has changed will be translated in the stock reactions showing an abnormal return (AR). For calculating abnormal return we used the following formula:

$$AR_{it} = R_{it} - E[(R)]_{it}) \qquad (1)$$

Where:

AR_{it} – abnormal return

R_{it} – rate of return

$E(R_{it})$ – expected return generated by a benchmark model – in our study represented by Warsaw Stock Exchange Index (WIG).

Event study methodology states that the information is readily impounded into stock prices. Null hypothesis (2) implies that that abnormal returns on stock are expected to be 0, meanwhile alternative hypothesis (3) states that abnormal returns are expected to be different from zero.

$$H_0: E(AR_t)=0. \qquad (2)$$

$$H_1: E(AR_t)\neq 0. \qquad (3)$$

To analyse the link between corporate responsibility and stock value we used two nonparametrical tests. First one is the Corrado Rank Test (Corrado 1989).

To examine the probable linkage between CSR announcement and abnormal return on stock, we based our research on 40 days event window for daily data and 8 weeks event window for weekly data. To verify findings from the Corrado Rank Test we used the Wilcoxon Signed Ranked

Test (Siegel 1956). It compared two related samples (rate of return calculated for the event day/week and that of day/week before the event). Our results were calculated with usage of MS Excel and SPSS Statistics.

Empirical findings

Graphs shown below present abnormal returns during the all five RI editions. Regular bars present abnormal returns during estimation period whereas the bold (red) one represent AR during event day. In case of 1st, 2nd, 3rd and 5th edition we can observe positive AR during event day whereas in 4th edition AR is negative. It might suggest that investors positively react on announcement about belonging to the RI. It also can be interpreted as a market reward for firms being socially responsible.

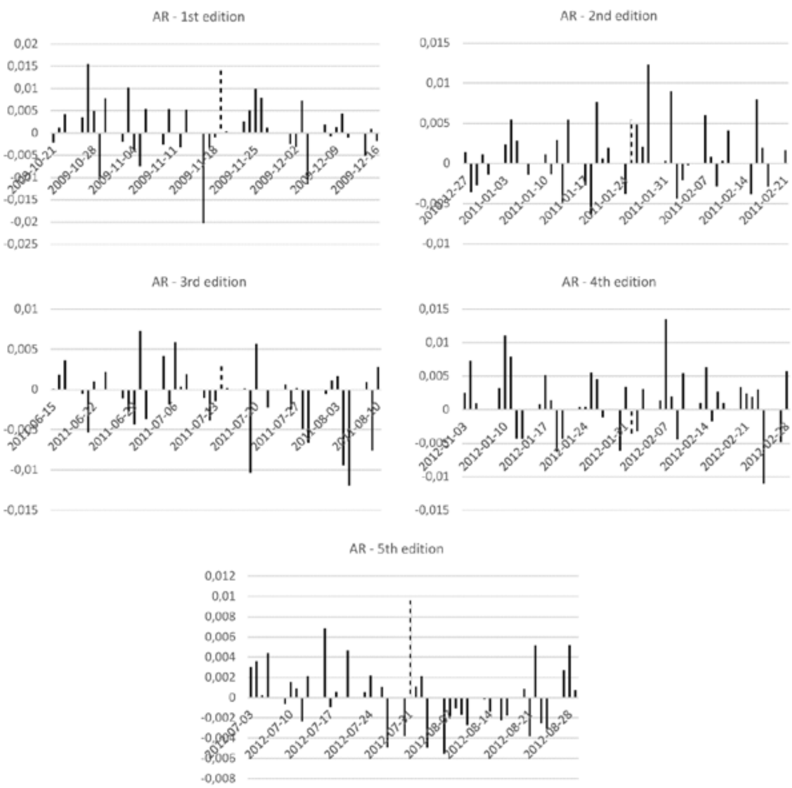


Fig. 1. Daily abnormal returns.

Source: Own elaboration

The results presented above have been tested for statistical significance. At significance level of 0,1 (using the Corrado Rank Test) we can reject the null hypothesis that abnormal return are expected to be 0. That means, that in 2nd and 5th edition abnormal returns during event day (Day 0) are statistically significant (see table 3).

Tab. 3. Corrado Test Statistics for daily abnormal returns

Day	1st editon	2nd edition	3rd edition	4th edition	5th edition
-20	-0,46	0,22	0,04	0,29	0,68
-19	0,18	-0,71	0,71	1,54	0,95
-18	0,26	-1,21	0,95	0,17	0,44
-17	0,48	0,46	0,20	-0,09	1,51
-16	1,19	-0,86	-1,39	0,54	1,31
-15	0,79	-0,52	0,95	1,43	0,60
-14	-1,88*	1,14	1,59	-1,27	0,66
-13	1,02	0,37	0,18	-1,49	-0,56
-12	-0,53	-0,03	-0,29	0,07	0,64
-11	1,56	-0,01	-0,91	0,88	1,70
-10	-0,84	-1,27	2,10*	-0,23	-1,29
-9	-1,04	-0,42	-1,19	-1,78*	0,40
-8	0,82	-1,61	1,50	-0,82	0,17
-7	-0,41	0,37	0,15	-0,60	1,68
-6	0,28	-0,86	2,14*	0,56	0,46
-5	-0,99	-2,23*	0,20	1,03	0,80
-4	0,60	2,06*	1,04	0,44	-0,36
-3	-3,08*	0,59	-0,71	-0,27	0,31
-2	-0,18	-0,10	-1,04	-1,25	-1,80*
-1	-0,01	-1,12	-0,62	-0,34	-1,09
0	**1,71**	**2,23***	**0,64**	**-1,45**	**1,78***
1	0,11	0,67	0,29	-1,72	0,25
2	0,65	-0,10	0,31	0,62	0,95
3	1,02	2,31*	-1,53	-0,48	-0,92
4	1,65	0,27	-0,13	1,23	-1,82*
5	1,12	1,12	-0,04	-1,07	-0,78
6	0,16	-0,97	-0,60	-1,07	0,11
7	0,23	-0,69	0,33	1,88*	0,05
8	-0,40	-0,48	-0,40	-0,76	-0,62
9	-0,79	0,39	-0,18	1,68	-0,25
10	0,31	0,91	-0,82	-0,38	-0,07

11	-2,14*	-0,67	-2,10*	0,50	-1,35
12	0,14	0,16	0,00	0,15	-0,44
13	-0,30	0,05	1,02	0,88	0,66
14	0,01	0,05	0,86	0,64	-1,31
15	1,00	-0,82	-0,04	0,05	1,64
16	-0,33	1,08	-2,08*	0,78	-0,52
17	-0,95	0,76	0,49	-0,82	0,42
18	-0,65	-1,12	-1,02	-1,07	0,80
19	-0,33	0,59	-0,62	1,60	1,56

* - significant at the 0,1 level

Source: Own elaboration

Empirical findings obtained with usage of the Corrado Rank Test were confirmed with the Wilcoxon Signed Rank Test. The statistically significant abnormal returns were noticed during event day in 2nd and 5th edition. Table 3 summarizes the results from the Wilcoxon Signed Rank Test.

Tab. 4. Wilcoxon Signed Ranks Test Statistics for daily abnormal returns.

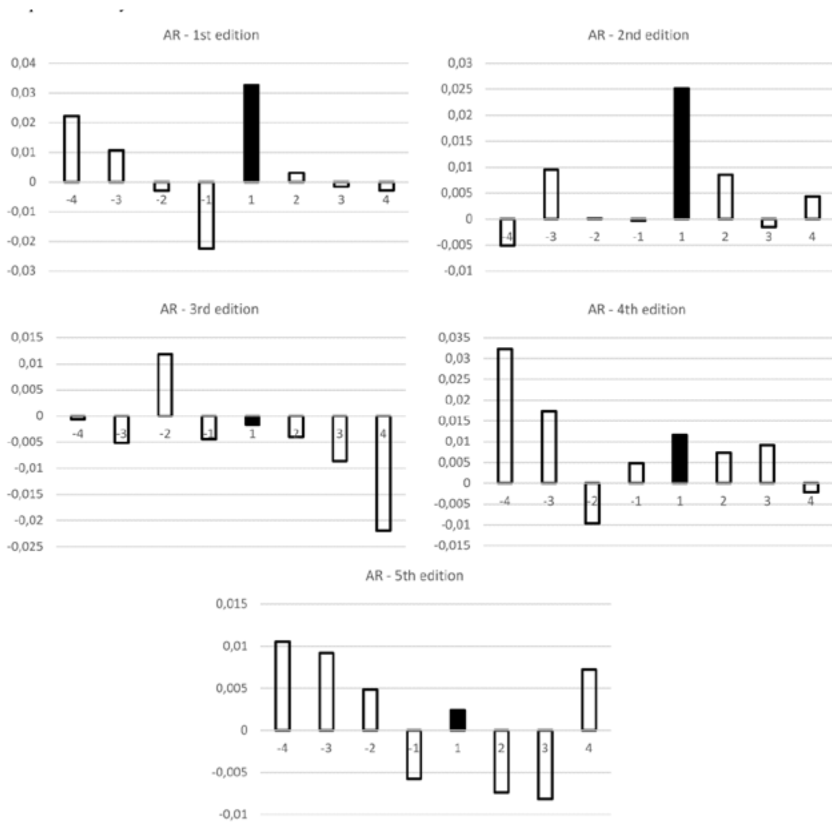
	I ed. 19.11.2009 - I ed. 18.11.2009	**II ed. 25.01.2011 - II ed. 24.01.2011**	**III ed. 14.07.2011 - III ed. 13.07.2011**	**IV ed. 01.02.2012 - IV ed. 31.01.2012**	**V ed. 31.07.2012 - V ed. 30.07.2012**
Z	-1,363	-1,817*	-,747	-,574	-1,650*
Asymp. Sig. (2-tailed)	,173	,069	,455	,566	,099

* - significant at the 0,1 level

Source: Own elaboration

To verify how long it takes investors to discount the information about including a company to the RI we decided to take into account also weekly abnormal returns. Graphs shown below present abnormal weekly returns during the all five the RI editions. Regular bars present abnormal returns during estimation period whereas the bold (red) one represent AR during the event week. Similar to the daily data, we obtained 4 positive and 1 negative weekly abnormal returns, however for weekly data the negative one was observed in 3rd edition, not in the 4th as it was for daily data. The strongest market reaction for the announcement was observed during the event week in 1st and 2nd edition of the RI.

Fig 2. Weekly abnormal returns.



Source: Own elaboration

Empirical results based on weekly data were tested for statistical significance as well. Both test (the Corrado Rank Test and the Wilxocon Signed Ranks Test) confirmed statistical significance of weekly abnormal return during the event week in 2nd edition. It is worth to mention, that in the case of Wilxocon Signed Randk Test, the result was obtained on the higher level of significance. During the event week in the 1st edition one can observed statistical significance of abnormal return (at significance level of 0,001) using the Wilxocon Signed Ranks Test. It is worth to point out that results based on daily data in four of five cases were confirmed also with weekly data. Table 4 and Table 5 present above mentioned results.

Tab. 5. Corrado Test Statistics for weekly abnormal returns.

Week	1st edition	2nd edition	3rd edition	4th edition	5th edition
-4	0,63	-1,02	0,26	2,24*	1,02
-3	0,55	0,60	-0,60	-0,55	0,31
-2	-0,48	-1,02	2,30*	-1,05	0,75
-1	-1,96*	-0,25	-0,85	-0,85	-1,29
1	**1,66**	**2,22***	**0,43**	**-0,25**	**0,31**
2	0,33	0,04	0,00	-0,15	-1,11
3	-0,18	-0,74	-0,43	0,85	-1,29
4	-0,55	0,18	-1,11	-0,25	1,29

* - significant at the 0,1 level

Source: Own elaboration

Tab. 6. Wilcoxon Signed Ranks Test Statistics for weekly abnormal returns.

	I ed post - I ed pre	II ed post - II ed pre	III ed post - III ed pre	IV ed post - IV ed pre	V ed post - V ed pre
Z	-3,408*	-2,840*	-,485	-,261	-1,207
Asymp. Sig. (2-tailed)	,001	,005	,627	,794	,227

* - significant at the 0,1 level

Source: Own elaboration

The motivation of this study was to shed some light onto debate in CSR literature about how the market reacts on an announcement about an inclusion of a company to the responsible index. Although empirical findings of this research are mixed, in our opinion there are some conclusions that can be drawn from this study. First, researching the Respect Index and SRI market in Poland has a unique value: an exploration how the relatively young SRI market behaves and how growing interest in CSR among companies and society translates to investors choices. Hence, the mixed results of empirical study may reflect the process of the market maturation and more rapid discounting of information by investors.

Summary

To sum up, empirical findings based on daily as well as on weekly data gave mixed results. However in our opinion there are some conclusions that can be drawn from this research. First of all the results may reflect the fact that SRI market in Poland is relatively young which is probably connected with the relatively low awareness of corporate responsibility among investors. To some extent this situation seems to be understandable taking into account relatively short history of Warsaw Stock Exchange itself.

Second, there is the reason to believe that awareness of CSR is rising and SRI market is becoming more and more mature. The period of time in which investors discounted the information about announcement that a company belongs to the RI has been changing. In the 1st edition we can observe positive market reaction on RI announcement only when weekly data are observed, when during the 5th edition positive abnormal return one can observe during event day.

Third, the results presented in this study shown that being socially responsible can be, to some extent, profitable for both – companies and investors.

We are aware of limitations of our study. Share prices can be influenced by wide range of other events than only a broadcasted fact of the RI inclusion. We were not able to identify other than the RI announcement factors that can explain abnormal returns on shares of selected companies. In the event study methodology there are also other event tests than these used in this study (e.g. CAR) however both tests used gave similar results.

In our opinion further research should focus on analyzing whether abnormal return after the announcement about the first entry to the Respect Index is statistically different than abnormal return after announcements about belonging to next editions of the RI (when a company belongs to the RI longer than one edition). It is also worth analyzing if there is any relationship between rapidity of market reaction and information about CSR available to investors. Broadening the scope of the analyses presented in the article by including other than non-parametrical test empirical tools, seems to be another interesting avenue for future research.

A final contribution of this study lies in its potential to stimulate further research on this ground. Future studies should attempt to answer the question whether the findings could be generalized to other countries from the region or other emerging markets all around the world.

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