

Syntetic Measures of Corporate Sustainability of Public Companies*

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Abstract: The paper aims at defining the concept of corporate sustainability, showing its origin and provenience. Conceptualization is followed by an analysis of corporate sustainability assessment in the scope of composite equity indices on major stock exchanges. The authors analyzed equity indices evaluating and comparing the methodology, assumptions, coverage and transparency, among others. The growing role of sustainability and sustainable investing was highlighted in the paper as well as a recognizable shift towards increased transparency and disclosing non-financial information by the participants of financial markets all over the world.

Keywords: sustainable development, responsible investment, public companies

Introduction

The paper aims at defining the concept of corporate sustainability, showing its origin and provenience. Conceptualization is followed by an analysis of a corporate sustainability assessment in the scope of composite equity indices on major stock exchanges. The authors analyzed the equity indices evaluating and comparing the methodology, assumptions, coverage and transparency, among others. The purpose of this research was to find similarities and differences between sustainability indices that might determine an investor's choice of investment strategy and the reaction for inclusion/exclusion to/from a particular index.

The growing role of sustainability and sustainable investing was highlighted in the paper as well as a recognizable shift towards increased transparency and disclosing non-financial information by the participants of financial markets all over the world.

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1. Analysis of a corporate sustainability concept

The concept of sustainable development (SD) has become an important objective of policy makers at both government and business levels. It is due to an increased awareness and acceptance of sustainable practices by corporations and a shift towards expanding corporate goals from growth and profitability to sustainability.

Sustainable development means considering social and environmental issues in economic activity and taking the responsibility of externalities created by a company. The global financial crisis showed a lack of corporate responsibility and a tendency towards risky behaviour. Many scholars, policy analysts and corporate practitioners have linked the severity of the financial and economic crisis to corporate governance failures (Sun, Stewart, Pollard 2012). While corporate governance issues are an indispensable part of sustainability concept.

Sustainability issues have become the challenge of our times. Especially global megatrends which are changing our world have a measurable impact on company's governance and performance. The main of them are: resource scarcity, CO₂ emissions, demographic problems, social inequalities and climate change. The global challenges create new opportunities and risks that companies must consider today to remain competitive in the future. Investment frameworks nowadays are often not only relying on conventional financial analysis but also take into account material non-financial factors arising from global sustainability challenges.

One of the most common definitions of sustainable development was developed in the 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 an emphasis on the fact that every company needs permission and admission from governments, communities and other stakeholders to do business.

Sustainable development is a broad concept due to the fact that it combines economic, social, justice, environmental science and management, business management, politics and law (Wilson 2003). Economic literature offers 100 definitions of sustainable development, mostly focused on particular sectors separately – for example environmental, economic, civilization – or emphasizing managerial, technical or philosophical and political decisions. As a result we can obtain many different concepts of sustainable development (Pearce et al. 1989; Pezzey 1989; Pezzoli 1997).

Therefore it might be easily observable that sustainable development is a complex and multidisciplinary concept. Depending on the approach taken by researchers it is defined differently: 1) in economics it is development that ensures the per capita income of future generations not to be lower than the one of the present generation; 2) in sociology it is development that takes into account preservation of the community and maintaining close social relationships; 3) in ecology it is development preserving the diversity of biological species, essential ecosystems and ecological processes (Ciegis, Ramanauskiene, Martinkus 2009).

Although corporate sustainability is often used as a synonym or in conjunction with corporate social responsibility or sustainable development it seems to have a wider meaning and is becoming a new and evolving corporate management model. Especially that it is viewed as a modern attractive alternative to traditional growth and profit maximization. Corporate growth and profitability are recognized as important, but a company is required to implement additional, societal goals. These goals are strictly related to sustainable development and encompass environmental protection, social justice and equity and economic development (Wilson 2003).

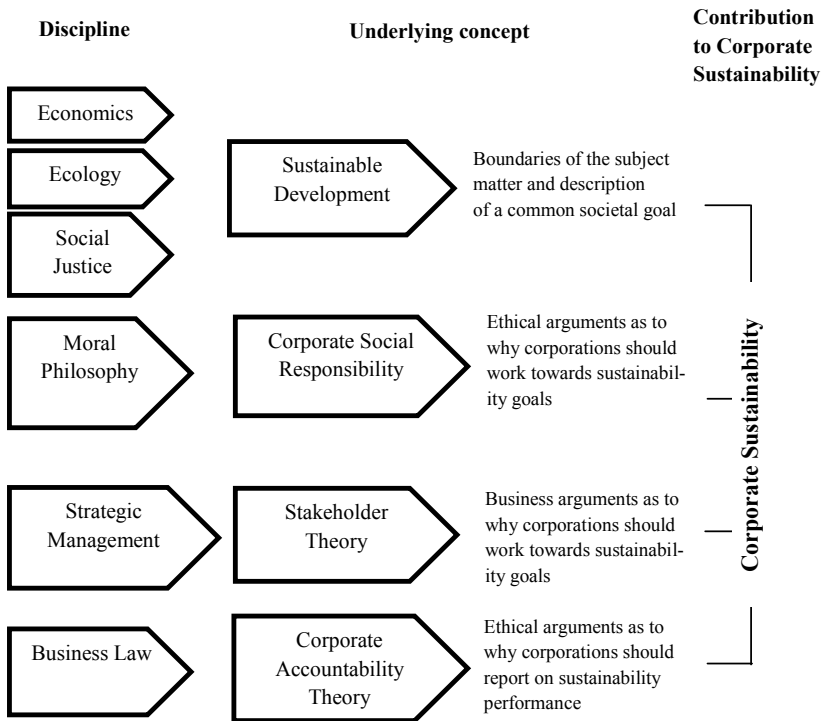


Figure 1. Development of Corporate Sustainability

Source: Wilson (2003).

In reference to the Figure 1 it could be noticed that alongside sustainable development three key constituents of corporate sustainability are identified (Wilson 2003):

- corporate social responsibility, offering ethical arguments for managers’ and companies’ involvement in sustainable development,
- stakeholder theory providing indispensable business arguments for the improvement of companies’ relationships with their stakeholders through more sustainable business practices,

- corporate accountability complementing corporate social responsibility by referring to companies' obligation to explain and substantiate corporate activities rather than to the need to get involved in them.

2. Growing importance of sustainability issues

At present, there is a worldwide movement towards socially responsible investing, supported by such international organizations as the United Nations Principles for Responsible Investment (UN PRI), the 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 \$3.74 trillion US Dollars in the United States, as reported by USSIF – The Forum for Sustainable and Responsible Investment (2013). According to a 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 the UK – €1.24 trillion.

There are number of frameworks of sustainability assessment that evaluate the performance of companies. The World Business Council for Sustainable Development (WBCSD, 2002), the Global Reporting Initiative (GRI, 2013) Carbon Disclosure Project (Carbon Action Report 2014) and development of standards (OECD, 2002), The United Nations Commission for Sustainable Development (United Nation 2001), The UN Global Compact (UN Global Compact 2011) are the foundation for sustainability reporting. The report Rate the Raters indicates that there is growing number of ratings, rankings, indices and awards that seek to measure, compare or reward corporate sustainability performance. (Rate the Raters, 2010). Between others: ASSET4 (Thomson Reuters), Bloomberg ESG Disclosure Scores, Dow Jones Sustainability Indexes, EIRIS, FTSE4Good Index Series, The Global 100 Most Sustainable Corporations in the World (Global 100), Good Guide, GS SUSTAIN, Newsweek Green Rankings, Oekom Corporate Ratings, Sustainalytics, Vigeo.

3. Sustainability assessment

Indicators and composite indicators are increasingly recognized as a useful tool for policy making and public communication in conveying information on countries' performance in fields such as environment, economy, society, or technological development.

Donella Meadows says: *Indicators are a necessary part of the stream of information we use to understand the world, make decision and plan our actions.* Indicators arise from values (we measure what we care about), and they create values (we care about what we measure) (Meadows 1998). The main feature of indicators is their ability to illustrate complex and sometimes elusive issues in wide-ranging fields, e.g., the environment, the

economy, society or technological development. The composite indicator ideally measures multidimensional concepts which cannot be captured by a single indicator, e.g. competitiveness, industrialization, sustainability, single market integration, knowledge-based society, etc. By simplifying, quantifying and analyzing phenomena and trends they enable users to compare complex dimensions effectively (OECD 2008).

There is a widely recognized need for individuals, organizations and societies to find models, metrics and tools for articulating the extent to which, and the ways in which, current activities are unsustainable (OECD 2008; Śleszyński 2011). This need arises on international, national and regional levels.

Sustainability science is addressing the fundamental link between science and the economy (Spangenberg 2011; Kates et al. 2001). Some of the core questions for research are particularly connected to the issue of assessing sustainability. The first concerns are around systems for monitoring and reporting on environmental and social conditions and their integration or extension to provide more useful guidance for efforts to navigate a transition toward sustainability. The second focus on relatively independent activities of research planning, monitoring, assessment, and decision support and their integration into systems for adaptive management and societal learning. Sustainability science is applied science; all its results should be instrumental, directly or indirectly, in solving sustainability problems; this orientation influences the choice of subjects and the methodology (Spangenberg 2011).

However, before developing the methodology and the indicators what is needed is a clear definition of the policy goals towards sustainability. This appears to be even more difficult since in most cases the development of indicators has started while there are still arguments over what constitutes sustainable development.

4. Sustainability indicators

Summarizing from (Dobrzański 2005; Borys 2005; Śleszyński 2011) there is no perfect set of indicators. They are selected in a given time and place, they are relational in nature because they combine the event, analysts and customers of indicators (Śleszyński 2011). T. Borys believes that indicators should be selected in relation to the aims and conditions of the problem and chosen development strategies, so that the set of indicators facilitate the implementation of the objectives of the program and support control and management within the framework of the adopted concept of development (Borys 2005). An indicator that is properly prepared methodically allows us to comment on a complex phenomenon. Synthetic recognition is suitable for international comparisons. The synthetic indicator combines many different stages and processes, expressed in different units, including quality indicators, which enables a broad view of the studied phenomenon. Sustainability indicators can be used to anticipate and assess conditions and trends, provide early warning information to prevent economic, social and environmental damage, formulate strategies and communicate ideas, and support decision making (Śleszyński 2011).

Indicators of sustainable development scientifically comply with the following technical conditions: justified, simple in design and easy to interpret, with adequate sensitivity, capable of portraying trends and development, based on the widely adopted standards, readily available at a reasonable cost-benefit relationship, properly documented, updated regularly in accordance with democratic procedures, and verified and refined with the progression of understanding of sustainable development (Dobrzański 2005).

When developing a framework and selecting sustainability indicators, two main approaches can be distinguished: the “top-down” approach, which means that experts and researchers define the framework and the set of the sustainability indicators and the ‘bottom-up’ approach that features the participation of different stakeholders in the design of the framework and the sustainability indicators selection process. Both of them have advantages: an expert brings scientific credibility to the indicator selection process, a non-expert brings political credibility (Meadows 1998).

The classification and evaluation of indicators can be based on the following general dimensions of measurement (Singh et al. 2009):

- What aspect of sustainability does the indicator measure?
- What are the techniques/methods employed for the construction of an index such as quantitative/qualitative, subjective/objective, cardinal/ordinal, one-dimensional/multidimensional.
- Does the indicator compare the sustainability measure (a) across space (‘cross-section’) or time (‘time-series’) and (b) in an absolute or relative manner?
- Does the indicator measure sustainability in terms of input (‘means’) or output (‘ends’)?
- Clarity and simplicity in its content, purpose, method, comparative application and focus.
- Data availability for the various indicators across time and space.
- Flexibility in the indicator for allowing change, purpose, method and comparative application.

One of the interesting issues of indices construction methodology is the scaling of results. Scaling for composite indexing purposes can be performed in one of four ways (Singh et al. 2009):

- Not scaling variables. This is an especially viable option where variables are already scaled.
- Use of standard scores (z and t values) is also popular in composite indexing. Raw scores are first adjusted for directionality by multiplying each with either +1 or -1. Standardization then involves transforming raw scores on each indicator into standard scores, e.g. $z = (\text{actual score} - \text{mean}) / \text{standard deviation}$. Standard scores can be further adjusted if calculations yield awkward values (for example by multiplying by 10, rounding, adding 100, etc.).
- Transforming variables into ordinal response scales. This may be done either during the survey itself or at a later stage using available data. Finally, there is the conventional

linear scaling transformation (LST) method. Variables are scaled from 0 to 100 with the aid of this technique. This requires points of reference relative to which indicators can be scaled. A minimum and a maximum value are usually identified for each of the variables.

5. Overview of sustainability indices

In order to provide a systematic overview of the most recognized sustainability indices that cover the biggest stock exchanges and which supply investors with the necessary information we can analyze in a detailed way sustainability assessment tools from all major financial markets, additionally we may compile them with less recognizable composite indices that serve as sustainability assessment tools that are local or regional. We start with a description of methodology and data providers due to the fact that these organizations cooperate with indices providers in the fields of evaluating companies, creating scores and rankings of socially responsible and acting sustainably companies in order to include or exclude them in sustainability indices. Additionally, these organizations can issue the rankings and scorings of sustainable companies together with disclosing the input data results, such as environmental, social and governance ratios.

5.1. Data and methodology providers

RobecoSAM is a data provider and investment specialist that is entirely focused on Sustainability Investing. It offers asset management, indices, private equity, engagement, voting, impact analysis, sustainability assessments and benchmarking services. RobecoSAM partners with S&P Dow Jones Indices to develop and license the DJSI family, launched in September 1999. Based on its Corporate Sustainability Assessment (CSA) an annual ESG analysis of 2,800 listed companies (as of 2014) is conducted. RobecoSAM is a signatory of UNPRI and a member of Eurosif which reflects its own commitment to advocating sustainable investment practices.¹

ASSET4 has created a database that is said to provide transparent, objective, and auditable extra financial information and offers a comprehensive platform for establishing benchmarks for the assessment of corporate performance. They were founded in 2003, and were taken over by Thomson Reuters in 2009 with their headquarters being located in Zurich Switzerland. In 2009 investors that represent more than \$2.5 trillion assets used the ASSET4 data. The principal customers of ASSET4 come from the financial sector. They claim to support the transparency of the rating methodology that facilitates understanding the process by which they calculate their scores and sub-scores. The ASSET4 universe includes almost 4,000 public world companies and covers major indices: S&P 500, MSCI World Index, Nasdaq,

¹ RobecoSAM Yearbook 2014, www.robecosam.com.

FTSE350 and MSCI World Index. The company collects and analyzes data from company reports, company websites, NGO websites, newspapers, journals, and trade publications but the sources of most ESG data are CSR reports created by the companies themselves. All data must be objective and publicly available, though analysts are permitted to contact company investor relations offices to learn about the location of public data. ASSET4 has collected data and scored companies on ESG principles since the fiscal year of 2002.

Sustainalytics is a global company providing sustainability research and analysis, serving investors and financial institutions around the world. The company has been present on the market for 20 years having local experience and expertise in the Responsible Investment (RI) and Socially Responsible Investment (SRI) markets. Sustainalytics works with its index partners to create and maintain sustainability indices by developing index methodologies, providing data and research and helping connect clients with index providers. Sustainalytics' launched its own Jantzi Social Index (JSI) in 2000. It provides methodology for STOXX ESG Leaders. It also provides services for both thematic and ESG leaders indexes such as: S&P/TSX 60, S&P/TSX Renewable Energy and Clean Technology Index and Global ESG Leaders Index family, as well as a score of pharmaceutical companies for Access to Medicine Foundations.

EIRIS (Experts in Responsible Investment Solutions) is the fourth of the most recognized provider of environmental, social and governance research for responsible investors. It is a social enterprise that has been present on the market since 1983 providing responsible investment services to more than 200 clients including asset owners, asset managers, banks, stock brokers and governments around the world – as well as major index providers. EIRIS provides methodology and evaluation of stocks for inclusion into FTSE4Good ESG Ratings and the FTSE4Good Index Series.

5.2. Equity composite indices

Dow Jones Sustainability Indices (DJSI) offer a range of sustainability indices that use the data provided by RobecoSAM CSA, currently there are two different index families that investors can choose from depending on their sustainability objectives versus their diversification requirements, these are: the DJSI – Dow Jones Sustainability Indices and the DJSI Diversified.

The Dow Jones Sustainability World Index was launched in 1999 as the first global sustainability benchmark. The DJSI family tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria. The DJSI is a family of benchmark indices that use the best-in-class approach to select sustainability leaders from each of the 59 RobecoSAM industries based on predefined sustainability criteria embedded in the Corporate Sustainability Assessment (CSA). Best-in-class in particular means that: (1) no industry is excluded from the indices, with the most sustainable companies in each industry selected for index membership; (2) companies receive a Total Sustainability Score

between 0–100 and are ranked against other companies in their industry; (3) the top 20% of companies from each industry, based on their sustainability score, are included in the Dow Jones Sustainability Indices;² (4) more than 50% of the criteria used to evaluate companies are industry-specific.

The annual assessment is based on an online questionnaire supported by extensive company documentation. A thorough analyses of company-specific information are complemented by an additional examination of media coverage, stakeholder commentaries and other publicly available sources (it is called Media & Stakeholder Analysis (MSA)). The strength of that method of sustainability assessment results from the fact that along with the input (declaration of companies given in the answers to the questionnaire) the output is being analyzed (companies have to submit official documents supporting statements about sustainability policies, statements about the performance of the companies for which publicly available resources exist are verified against these resources), additionally MSA that is based on the data provided by the media monitoring company RepRisk, serves as cross-checking tool. Finally, Deloitte guarantees the proper application of CSA on an annual basis. The CSA questionnaire features about 80–120 questions on economic, environmental and social issues with a focus on industry-specific criteria that have a material impact on companies' ability to generate long-term value. The CSA is regularly updated and adapted to capture new sustainability trends that are at the forefront of each industry sector and that are likely to have an impact on companies' competitive landscape.

The FTSE4Good Index Series launched in 2001 encompass five tradable and five benchmark indices, representing Global, European, the USA, Japan (benchmark only), Australian (tradable only) and UK markets. The FTSE4Good benchmark indices include all companies in the broad market index, or starting universe that meet the FTSE4Good criteria. Tradable indices cover the largest 50 or 100 companies in the benchmark index, as measured by their market capitalization.

A new tool is the FTSE4Good ESG Ratings that was launched in 2011, where companies are rated 0–5 on the ESG criteria, while 0 indicates no information, 3 Good Practice (FTSE4Good Index level) and 5 Best Practice.³

The FTSE4Good ESG Ratings cover all large and midcap stocks in developed markets (as defined by the FTSE). Additionally, small cap stocks are covered for the UK and Spain are responsible for performing the assessment of companies for the FTSE4Good ESG Ratings.⁴ The FTSE4Good ESG Ratings are reviewed semi-annually in March and September, in line with the FTSE4Good Index Series.

The **STOXX ESG Leaders** indices are a group of sustainability indices based on a fully transparent and rule-based selection process. Sustainalytics, is a leading global provider of

² Dow Jones Sustainability Europe Index Guide, RobecoSAM AG 2013, p. 4 www.robecosam.com

³ Rate the Raters Phase Five Questionnaire for Raters. FTSE4GOOD ESG Ratings. February 2012/2013 Sustainability.

⁴ Ground Rules For The Management Of The FTSE4good ESG Ratings, Version 1.0 April 2011, p. 5.

ESG research and analysis which provides key performance indicators (KPIs) to construct a relative rating using a fully transparent weighting model. The ratings are calculated for three sub-areas: environmental (E), social (S) and governance (G). They relate to all companies in the base universe STOXX Global 1800.

Each of the three sub-areas is represented in an index. Together they are summed up to form the overall index, the STOXX ESG Leaders index. This roll-up feature enables investors to adjust the definition of sustainability across the three criteria by allocating their investment across the sub-indices accordingly. The overall index STOXX ESG Leaders index serves as an underlying feature for the ESG Blue-chip indices covering the blue-chip representations of different regions.

The **STOXX Sustainability Indices (STOXX SI)** track the performance of sustainable companies based on the proprietary research approach of the renowned sustainable private bank, Bank Sarasin. Their analysis is based on general as well as industry-specific criteria covering all three dimensions of sustainability: environmental, social and governance. Only those companies which are considered sustainable companies are eligible for inclusion in the indices. For this purpose each company is clustered into a matrix of the company's individual ratings and the rating of the industry that the company is active in. The research model further defines which areas of that matrix are considered sustainable and thus an overall evaluation is reached. The STOXX Sustainability Indices are currently available for Europe and the Eurozone.

The sustainability index **CEERIUS (CEE Responsible Investment Universe)** is a capitalization-weighted tradable price index, established in 2009, composed of leading companies – in reference to social and ecological criteria – that are traded on stock exchanges in the region of Central, Eastern and South-Eastern Europe. Mag. Friesenbichler Unternehmensberatung is responsible for the sustainability research and methodology employed and the Annual sustainability evaluation and classification of the companies according to 9 rating categories (A+ to C–). All companies rated A+, A and A– are included in the CEERIUS. Additionally companies with a rating of B+ can be included in the index to cover the best third of each sector. There is a positive selection of companies. In 2014 there were 12 companies in the index. The stock selection takes place in December and is valid for one year.

The corporate sustainability index (**ISE**) of the **BOVESPA** (São Paulo stock exchange) was introduced in 2005 in order to create a benchmark for socially responsible investments. It is composed for the shares of companies that are “highly committed to social responsibility and corporate sustainability and also to promote good practices in the Brazilian corporate environment”. This is the only index of its kind in Latin America. Its methodology was designed by the Sustainability Research Center (GVCes) at Fundação Getulio Vargas's Business School (FGV-EAESP). Sustainability data for the ISE are collected by means of a detailed questionnaire sent by CES-FGV each year to up to 200 of Brazil's largest and most traded publicly quoted companies. The criteria are based on environmental, social and economic factors that are divided into four categories: policies (commitment

indicators); management (program, target and monitoring indicators); performance; legal compliance. The positive selection is made according to the answers of a questionnaire that comprises three different aspects: environmental, social, and economical.

The ISE measures the total return on a theoretical portfolio of up to 40 stocks. The portfolio is constructed from BM&FBOVESPA's most actively traded securities in terms of liquidity, and weighted according to the outstanding shares' market value. The ISE index is re-balanced annually in December.⁵

The RESPECT Index was introduced in 2009 at the Warsaw Stock Exchange and was the first sustainability index in Central and Eastern Europe. The Project RESPECT Index aims to select companies which are managed in a responsible and sustainable way, taking into account: the quality of reporting, investors' relations, information policy and liquidity of the company. Deloitte supports the project in company evaluation processes.

Respect is the total return index. The Index take into account in its portfolio companies that are listed on the Warsaw Stock Exchange, excluding dual listed companies and those listed at NewConnect, which have been positively reviewed by a project partner within the framework of the three stage process. The number of index participants is variable. At first the group of companies with the highest liquidity, listed in: WIG20 mWIG40 and sWIG80 indices is identified. Secondly, an assessment of the practice of companies in the field of corporate governance (Corporate Governance), information policy and investors' relations is conducted. On the third stage the level of maturity of companies in terms of corporate social responsibility, made on the basis of questionnaires drawn up by the companies, which are subject to detailed verification carried out by the project partner – Deloitte is evaluated.

A review of the index portfolio is conducted every six months and is aligned with the quarterly revision of WIG20, mWIG40 and sWIG80 (after September and March revision). 23 companies were in the index in 2014.

NASDAQ OMX Green Economy (NASDAQ Green) is a family of indexes tracking the growing environmental and clean-energy sector, also known as the Green Economy. The NASDAQ OMX Green Economy Index began calculating on September 22, 2010.

The Green Economy itself is defined as a system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks or ecological scarcities. (UNEP 2009).

The Green Economy is a shift of economic development towards sustainable practices in business which appeared strongly after the global crisis. The Green economy is attracting investors and the Green Economy Index is an answer for it providing a global benchmark for institutional and retail investors. The main areas of investment are energy efficiency, renewable energy generation, pollution mitigation, sustainable transportation, green buildings,

⁵ Siddy Dan, Exchanges and Sustainable Investment A report prepared for the World Federation of Exchanges, August 2009 p. 16 www.world-exchanges.org.

waste and water management (Ryszawska, 2013). The Green Economy family of indexes includes the regional sector and sub-sector indexes.

Therefore the NASDAQ OMX Green Economy is an example of an index that is totally dedicated to the companies offering sustainable production and services while other indices presented in this paper only evaluate all types of business activities in the field of applying sustainable practices and policies. The NASDAQ OMX Global Index Group is engaged in the design, development, calculation, licensing, and marketing of NASDAQ OMX Indexes. The support is given by SustainableBusiness.com, LLC. In 2014 there were 375 companies chosen with a market cap of \$50 million or higher from a universe of over 460 companies. The Index Securities are evaluated annually in June (also any time during the year other than the Evaluation, if an Index Security no longer meets the Eligibility Criteria).

6. Results of the analysis and conclusions

All of the basic features of the analyzed indices are presented in table 1.

Table 1

Basic features of the sustainability indices of major world stock exchanges

Exchange	Index group	Data and methodology provider	Number of indices in the group	Launch year
NYSE	DJSI	RobecoSAM	20	1999
London Stock Exchange Group (via joint ownership of the FTSE)	FSTSE4Good Index Series	EIRIS	10	2001
London Stock Exchange Group (via joint ownership of the FTSE)	FTSE4Good ESG Ratings	EIRIS	1	2011
SIX Swiss Exchange and Deutsche Borse	STOXX ESG Leaders Indices	Sustainalitics	8	2011
SIX Swiss Exchange and Deutsche Borse	STOXX Sustainability indices	Bank Sarasin	8	2005
WSE	RESPECT	Deloitte	1	2009
Wiener Borse	CEERIUS	Mag. Friesenbichler Unternehmensberatung	1	2009
BM&FBOVESPA	BOVESPA Corporate Sustainability Index	Sustainability Research Center (GVCes) at FGV-EAESP	1	2005
NASDAQ OMX	NASDAQ OMX Green Economy index	SustainableBusiness.com, LLC	5	2010

Source: own elaboration.

It is worth noting that the longest history of evaluating companies and creating sustainability composite indices has the family of Dow Jones Sustainability indices and as shown in table 2 it discloses a lot of information about the methodology, construction of indices

and evaluation procedures. While some of the analyzed indices are quite poorly presented and neither stock exchanges nor data and methodology providers disclose detailed information about the indices. In table 2 indices are presented and grouped according to territorial coverage, evaluation criteria and time and frequency of index revision.

Table 2

Comparison of the characteristics of sustainability indices disclosed by its providers

Territorial coverage		Evaluation criteria		Index weighting		Index revision	
Global	FSTSE4Good	Environmental,	FSTSE4Good	Market capitalization weighting	FSTSE4Good	semi-annually in March and September	FSTSE4Good
	Index Series		Index Series		Index Series		Index Series
	FTSE4Good	Social	FTSE4Good	Bovespa CSI	NASDAQ	Bovespa CSI	FTSE4Good
	ESG Ratings		ESG Ratings		Green		ESG Ratings,
	STOXX	Governance	STOXX	DJSI	DJSI	DJSI	RESPECT
	ESG Leaders		ESG Leaders		Bovespa CSI		
	Indices		Indices				
NASDAQ		STOXX SI					
Green		RESPECT					
DJSI							
Regional	DJSI	Environmental,	CEERIUS	Market capitalization weighting with modifications	CEERIUS	Annually	STOXX ESG
	Bovespa CSI				RESPECT		Leaders Indices and DJSI, ^a
	CEERIUS	Social					NASDAQ
	STOXX SI						Green, ^b
							CEERIUS and Bovespa CSI, ^c
Local	DJSI	Economic, Environmental, Social	DJSI	Rating of companies	FTSE4Good	Nondisclosed	STOXX SI
	RESPECT		Bovespa CSI		ESG Ratings		
		Nondisclosed	NASDAQ	Nondisclosed	STOXX	Nondisclosed	
			Green		ESG Leaders		Indices
					STOXX SI		

^a In September.

^b In June.

^c In December.

Source: own elaboration.

The type of selection criterion was excluded from the table due to the fact that all of the analyzed indices are making a positive selection of companies, except for four out of eight of the STOXX Sustainability indices. The most transparent index provider is DJSI and the least transparent are the STOXX ESG Leaders Indices and STOXX Sustainability indices.

The sustainability indices analyzed in the paper have a global, regional and local territorial coverage: 5 of 9 are global, 4 of 9 are regional and 2 of 9 are local. The DJSI has all three territorial dimensions. Most of them (8) used economic, social and environmental evaluation criteria. Seven indices are based on market capitalization weighting or market

capitalization weighting with modifications. Index revision is made mostly semi-annually or annually (8).

The main rating challenges described in the literature (Windolph 2011) fall into the following categories: lack of standardization, lack of credibility of information, bias, tradeoffs, lack of transparency and lack of independence.

The main problems faced while analyzing sustainability composite equity indices were:

- poor transparency in the ratings process,
- inadequate focus on material issues,
- difficulty in comparing companies across industries,
- conflicts of interest in organizations that offer services

In the context of the poor transparency, providers could more disclose their methods, measures, and the content of their surveys. To improve the credibility of the information, external verification by independent bodies is necessary. Generally the concept of CS itself is multidimensional therefore a more precise and common understanding of CS is needed.

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SYNTETYCZNE MIARY ZRÓWNOWAŻONEGO ROZWOJU SPÓLEK PUBLICZNYCH

Streszczenie: Artykuł definiuje koncepcję zrównoważonego rozwoju, pokazując jej źródła i znaczenie w działalności przedsiębiorstw. Przedstawione zostały wybrane indeksy giełdowe oraz firmy dostarczające informacji do ich tworzenia. Analizie poddano indeksy giełdowe w tym metodologię ich tworzenia, założenia podstawowe, ich zasięg i przejrzystość. Ponadto zwrócono uwagę na rosnącą rolę zrównoważonego rozwoju i odpowiedzialnego inwestowania, a także podkreślono znaczący wzrost zainteresowania ujawnianiem informacji niefinansowych i transparentności uczestników rynków finansowych na świecie.

Słowa kluczowe: zrównoważony rozwój, odpowiedzialne inwestowanie, spółki publiczne

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