

# Valuation of companies activity on sustainability level

**R. Nowosielski\*, S. Nadolski**

Division of Nanocrystalline and Functional Materials and Sustainable Pro-ecological Technologies, Institute of Engineering Materials and Biomaterials, Silesian University of Technology, ul. Konarskiego 18a, 44-100 Gliwice, Poland

\* Corresponding author: E-mail address: ryszard.nowosielski@polsl.pl

Received 06.11.2006; accepted in revised form 15.11.2006

## Cleaner production

### ABSTRACT

**Purpose:** Paper presents a possibilities of companies valuation due to their activity in accordance with sustainable development.

**Design/methodology/approach:** The article describes best known methods of companies assessment (stock indices, non-financial reports and other indicators) connected with sustainability. Also there is a history of indices methodology which comes from ethical, religious problems and sustainable development principles.

**Findings:** There is still more companies interested in being (as a part of sustainability indices or other rankings). Research organizations should be concentrated on different type of rankings which contain summary report of best available techniques.

**Research limitations/implications:** Every sustainability index or non-financial reports ranking should be important part of companies management thinking. It is important idea to create these indices for every local stock exchange. Also companies should publish true and clear non-financial reports.

**Originality/value:** The paper concerns on existing indices and tries to make new look at sustainability problems. Important conclusions are connected with non-financial reports and possible connections between indices, rankings and best available techniques.

**Keywords:** Environmental management; Theoretical fundamentals of cleaner production; Sustainable development, SRI

## 1. Introduction

Sustainable development has very pragmatic character. Main responsibility goes to all people which want to improve life quality; their and their children. They also can not give permission to recourse and ecological extermination. It is necessary to have conscience about existence of processes which make restrictions to economic growth. Compromise between development and protection of environment is also necessary [1-5].

Sustainable development is a dynamic process which passes in time and depends on many parameters. It is difficult to define their influences and mutual relations between them. There is no

coherent conception of control and indicators were not qualified unambiguously also. There can be several indicators [1,6]:

- the quality of life which is defined as sensible value, and is shaped under influence of cultural, natural and economic spheres; the level of satisfaction is marked by realizing the needs;
- the quality of environment, defined by potential and capacity of ecosystems, state of biological variety and the productiveness, stability and durability of ecosystems;
- the level of ecological consciousness joint with cultural and socially – economic.

These indicators are non-measurable, so therefore it was approached to search of values, which could show level of sustainability.

## 2. Socially responsible investing (SRI)

Growing level of ecological conscience between investors extorted on businessmen effective introduction of sustainability rules. Investors needed coherent and objective indicator of sustainable development as assistance in making of financial decisions. Socially responsible investing (SRI) gains on meaning several years, both for businessmen and shareholders. Shareholder is group or individual which is able to be or to being under influence of company indirect his products, strategies and productive processes, management systems and procedures [7].

Investors made a demand about invention of additional indicators to choice between different type of funds. First it was concentrated on ethical or religious questions, but idea became later developed on many ways. Deutsche Bank report (2002) describes indices and shows which of them could become the most important tool connected with SRI [8]. For investors which want to make decisions with support of SRI rules there is several sights of good index: objective, consistent and verifiable criteria of selection; index methodology should be logical and indices should be easily to replicate and reasonable connected with an underlying benchmark. Evolution of indexing methodology began with growing level of companies interest on sustainable development problem. Next step and real evolution came with the creation of research bodies focused on SRI development. In foundations companies should increase their transparency through regularly presented reports [8].

All voluntary reports not connected with financial side of activity are defined as non-financial reports. Companies represent in these reports all kind of activity in ecological and social matters. In last ten years time interest of these reports grown up, however in most causes they are still subjective lists of pro-social and pro-ecological activity closer to marketing sphere. Non-government organizations (NGO's) extort on companies practice relying on publishing reliably non-financial reports. There is no uniform, dictated and defined style of reports therefore they have different style and content. Companies are able to publish in their reports many-sided, insignificant enumerations avoiding the important areas of activity [10]. The most often are avoided these areas, in which fall or deterioration of indicators took place. However – better works on customer admission on defeat (joint with repair program) than keeping in secret weak indicators [7].

Global Reporting Initiative (GRI) made an attempt to standardize the reports. GRI is an independent organization, which marked the range of voluntary reporting connected with different aspects of companies activity. Most important indicators are: economical, social and respect of natural environment. Long list of questions prepared by GRI is treated very generally by companies, they answers selectively on many questions. For example – there is one question which investors are especially interested in – geographical decomposition of paid taxes. Many companies give reluctantly answer, claiming: “taxes aren't reported according to countries” [9,10]. In spite of many problems reports based on GRI guideline are interesting and valuable source of knowledge for investors. It's possible to have hope that essential and data truth level in reports will be increased according to investors engagement and interest.

GRI standards are classified to process standards, which aim is to define procedure of shaping relations with shareholders, communications and management systems building [7]. Other example is AA1000 (AccountAbility1000), widespread especially among British companies. AA1000 makes easier qualification of strategic aims, measurement of progress, realize audit of organization, showing the results and their using in case of strategic balance. Co-operation with shareholders is an important element of all tasks. It leads to building trust with organization and demonstrated by her image. Other groups of standards are [7]:

- performance standards – defines admissible results (Global Compact, MOP Conventions);
- foundation standards – OECD guideline defines best practices in areas;
- certification standards – necessary to adapt management systems according to these standards and to get the certificate (SA8000, ISO14001, EMAS);
- screening standards – companies have to realize needful conditions to existing in definite group of companies (FTSE4Good, DJSI).

The most interesting from investor's sight is group of standards connected with stock indices (based on financial data). Exact analysis of these reports permits on distinction of activity spheres according to financial value. Stock – exchanges (which have access to these data) joined their efforts with research organizations. This cooperation became foundation to specialist sustainability indices. There is more than forty organizations which already realize studies over SRI. Most important of them are [11]:

- Centre Info (Switzerland) – SiRi Company member,
- CoreRatings (United Kingdom),
- Covalence (Switzerland),
- Deminor Ratings (France),
- Dutch Sustainability Research (DSR – Netherlands),
- EURiS (United Kingdom),
- Ethibel / Stock at Stake (Belgium) – SiRi Company member,
- Innovest Strategic Value Advisers (USA),
- Investor Responsibility Research Center (IRRC – USA),
- KLD (USA) – SiRi Company member,
- Michael Jantzi Research Associates (Canada) – SiRi Company member,
- Oekom (Germany),
- SAM Research (Switzerland),
- SERM (United Kingdom),
- Vigeo (France).

SRI is named also as sustainable investing. SRI problem is connected directly with sustainability and indirectly with responsibility in business.

The idea of responsibility in business (CSR - Corporate Social Responsibility) evolves with early90's of XX century as connection of three different matters [7]:

- conception of sustainability,
- the road of citizens pressure (connected with social activity rights defense of: human, animals, consumers and natural environment),
- the road of self-regulation in business (self-restrictions of business sector participants leading to reliable and honest guidance of business activity – elimination of corruption and fraud).

### 3. Dow Jones Sustainable Index

First steps in creating of indices belongs to SAM Research Group (Sustainable Asset Management from Zurich), which in cooperation with Dow Jones Indexes published at 8 September 1999 first composition of Dow Jones Sustainability Index (DJSI world). DJSI indices were started to help with making stock advantages for companies which activity is compatible with sustainability rules [6,12] and to follow performance of leaders between sustainable companies. DJSI World includes world leaders without companies generating profits from liquor, cigarettes, gambling, armament and guns. All indices from DJSI family are estimated according to Corporate Sustainability Assessment and basis on suitable criteria. It is possible to differ now [12]:

- DJSI World,
- DJSI STOXX and DJSI EURO STOXX - European firms indices (40 best companies named as "Blue Chips" STOXX40 are assembled in index EURO STOXX 40). These indices are fully integrated with Dow Jones STOXX 600 index,
- DJSI North America,
- DJSI United States.

European indices are published from 2001 (when STOXX approached to association), and North - American from 2005. DJSI family indices can be also marked out for individual regions or branches. Company classification in Dow Jones stock index is basis to existence in sustainable index. Except of this company has to fulfill concrete criteria (described with weights). Criteria were divided on three capital groups: economic, social and natural [9,12].

Efforts of firms connected with appearing and staying in rankings have grown due to these indices. All indices are studied every quarter, however actualizations related with changes in companies (especially these causing resignations from stock – exchange) are being made regularly [9].

DJSI family indices are making pressure most on economical and social criteria. Natural capital of company is described with three main criteria [9,12]:

- Eco-Efficiency (environmental results - connection of the economical and environmental efficiency) – weighting 4.8 (the highest percentage weighting among all criteria),
- Environmental Reporting – weighting 1.8,
- Environmental Policy (management) – weighting 3.6, and industry specific criteria (weighting depends on industry).

### 4. FTSE4Good

FTSE4Good is the second most important indicator of sustainability, published since 2001. FTSE4Good indices family comes from London stock exchange index – Financial Times Stock Exchange. FTSE4Good criteria concerns on all companies quoted in FTSE – five benchmark indices covering the Global and European regions, US, Japan and UK. An additional four tradable indices (Global, European, US and UK) have been specially designed to provide asset managers with a cheap and efficient basis for investment products [13]. To be included in indices companies need to show, that they are [13]:

- developing positive relationships with shareholders,
- working towards environmental sustainability,
- upholding and supporting universal human rights.

There are some companies excluded from indices [13]:

- Tobacco Producers
- Companies manufacturing either whole, strategic parts, or platforms for nuclear weapon systems
- Companies manufacturing whole weapons systems
- Owners or operators of nuclear power stations

Companies applied about appearing in FTSE4Good indices have to realize criteria collected in three groups: environment, human rights and social matters. Environmental group of criteria consists of three subgroups. First subgroup concerns on environmental protection – 9 indicators (5 main and 4 marginal), from which company has to comply six – five main (alternatively four) and one marginal (two). Over one third activity of company should be included in environmental management systems characterized by six indicators. Another ten indicators (four main) consists on environmental reports and at least three of them should be realized. Problem of human rights is most important for companies from countries with smallest level of human rights respect.

Realization criteria from third group – social matters and relations with shareholders – is connected with level of companies worry about these relations in reports and about influence of company on society. Company has to realize seven of nine criteria from three groups [9]:

- diplomacy,
- management systems,
- practice and performance.

### 5. Indicators and indices of companies sustainability

Except two most important described in this paper indices there is already a lot of different indicator and indices of sustainability. Following composition (tab. 1) presents chosen informations about part of them.

There are still coming new indices and indicators. For example – Dutch AEX, which Amsterdam stock Exchange announced in cooperation with unit of SiRi Company – Dutch Sustainability Research (DSR). Yearly DSR reports show best Dutch companies on background of world and European forefront [14].

Asian Economic Tigers – most faster developing markets of the World – also try to appear in these compositions, but there is problem with breaking of human rights. First steps in this direction were made in Japan – in August 1999 came into being Nicco Eco Fund. After that Asian businessmen brought into existence ASrIA – Association for Sustainable and Responsible Investment in Asia. There is associated eleven funds (national and international) in ASrIA now. Asian markets till 2004 didn't have their own SRI index, however Japanese companies had already tried to start up their version of FTSE4Good index – with positive effect [15].

### 6. Conclusions

Best valuation for companies is appearing in one of most important sustainability indices – DJSI or FTSE4Good. Criteria of existence in these indices are gradually raised and sharpened.

Table 1.  
Selected indices and indicators of sustainability [8]

Index	Markets covered	Launch date	Currency	Research Center
Domini 400 Social Index	USA	1990	US\$	KLD
Dow Jones Sustainability World Index	World	09.1999	US\$ Euro	SAM
E.Capital	World	01.2000	Euro	E.Capital
Jantzi Social Index	Canada	01.2000	CA\$	MJRA
Calvert Social Index	USA	28.04.2000	US\$	Calvert
E.Capital	Europe	10.2000	Euro	E. Capital
Humanix	Europe	01.2001	Euro	Humanix
Humanix	World		(SEK for Company)	Caring Company
FTSE4Good Europe	Europe	07.2001	Euro	FTSE / EIRIS
FTSE4Good UK	UK		GBP	
FTSE4Good Global Index	World		US\$	
FTSE4Good USA Index	USA			
ASPI Eurozone	Eurozone	07.2001	Euro US\$	ARESE
Dow Jones STOXX/EURO STOXX Sustainability Index	Pan-European	10.2001	Euro US\$	SAM
Ethibel Sustainability Index Europe	Europe	06.2002	Euro US\$	Ethibel / Stock At Stake
Ethibel Sustainability Index Global	World			

For example FTSE noted down in may 2006 that the tightening of its FTSE4Good criteria has helped bring about “a marked improvement” in companies social and environmental policies and disclosure [15].

Sustainability indices are directed on ethics in business, social responsibility and also they are source of informations for investors. Sustainable development treated as social responsibility among companies and shareholders becomes universal on World markets. In last five years time SRI moved closer to the financial and corporate mainstream, but it is still long and hard process [15].

It is necessary to see slow and systematic growth of companies interest about sustainable development. Companies more seriously approach to matter of voluntary reporting from activity connected with SRI and publishing reports including more objective data. For part of them this is only chance to be included in world leader's group.

Next step is connected with restricting of working area on

concrete techniques and technologies. In making a dependence between them and company position in chosen stock index will be helpful BAT standards [6,16].

## References

- [1] R. Nowosielski, Basic principles and models of sustainable development conception and his practical meaning for economy, Cleaner Production in Poland Special Book (2002), 2-10.
- [2] R. Nowosielski, S. Kielnar, The estimation of the technological processes using best available techniques (BAT), Proceedings of 3rd Scientific Conference on Materials, Mechanical and Manufacturing Engineering MMME'2005, Gliwice – Wisła, 2005, 423-428.
- [3] R. Nowosielski, M. Spilka, The designing of sustainable technology, 3rd Scientific Conference on Materials, Mechanical and Manufacturing Engineering MMME'2005, Gliwice – Wisła, 2005, 429-434.
- [4] R. Nowosielski, M. Spilka, Sustainable technology as element of present methods of production management, Proceedings of 10th International Scientific Conference Achievements in Mechanical & Materials Engineering, Gliwice – Krakow – Zakopane, 2001, 387-392.
- [5] R. Nowosielski, M. Spilka, Sustainable material technology, Proceedings of 12th International Scientific Conference Achievements in Mechanical & Materials Engineering, Gliwice – Zakopane, 2003, 685.
- [6] W. Stodulski, Measured sustainability, [www.opoka.org.pl](http://www.opoka.org.pl)
- [7] B. Rok, Responsible business in irresponsible world, Academy of Development of Philanthropy in Poland and Forum of Responsible Business, Warsaw, 2004.
- [8] N. Hamid, Y. Sandford, Are SRI indices responsible?, Deutsche Bank, October 2002.
- [9] J. Bagiński, M. Rumiński, D. Wawrzyniak, Rating of sustainable development activities. Engineering of Quality 03 (2006) XII-XV.
- [10] W. Żółcińska, Are companies reports relating about their social and ecological activity useful? CFO – Financial Magazine 19.11.2004.
- [11] S. Beloe, J. Scherer, I. Knoepfel, Values for Money: Reviewing the Quality of SRI Research. SustainAbility, 2004
- [12] [http://www.sustainability-index.com/djsi\\_pdf/publications/Guidebooks/DJSI\\_Guidebook\\_NA\\_20.pdf](http://www.sustainability-index.com/djsi_pdf/publications/Guidebooks/DJSI_Guidebook_NA_20.pdf)
- [13] [http://www.ftse.com/Indices/FTSE4Good\\_Index\\_Series/Downloads/FTSE4Good\\_Factsheet.pdf](http://www.ftse.com/Indices/FTSE4Good_Index_Series/Downloads/FTSE4Good_Factsheet.pdf)
- [14] [http://www.siricompany.com/pdf/DSR\\_AEX\\_Report\\_June2006.pdf](http://www.siricompany.com/pdf/DSR_AEX_Report_June2006.pdf)
- [15] <http://www.environmental-finance.com/2004/0410oct/sri.htm>
- [16] R. Nowosielski, S. Czerkowiec, W. Pilarczyk, The perspective of applying BAT in Polish industrial realities, Proceedings of 12th International Scientific Conference Achievements in Mechanical & Materials Engineering AMME'2003, Gliwice – Zakopane, 2003, 661-664.