Martin Polívka, Jiří Pešík

University of West Bohemia, Faculty of Economics, Department of Economics and Quantitative Methods, Husova 11, 306 14, Pilsen, Czech Republic

email: polivkam@kem.zcu.cz, pesikj@kem.zcu.cz

Performance of the Socially Responsible Investment During the Global Crisis

Abstract

There has been lately a big discussion about the causes of the current financial crisis. Many authors claim that financial markets and investments desperately need innovations. Socially responsible investment is one of such innovations, which has recently attracted great interest. The basic idea of socially responsible investment – investing only into the companies which fulfill some normative criteria – is actually nothing new, but is has been rapidly growing during the last decade. This paper is concentrated on the performance of such investments. According to the traditional portfolio theory, the SRI should perform worse or at best the same as the conventional indices. Nevertheless, there are also opinions proclaiming the superiority of the SRI. These opinions are based on the idea that the socially responsible behavior is a sign of the well-managed company, which is therefore supposed to keep its performance in the future more likely than the "irresponsible" enterprises. Many researches have been conducted to solve this controversy. First part of this paper therefore contains brief overview of the methodology and results of these studies. These researches are not up to date enough, though. Because of the huge change of economic situation caused by the global crisis, in our opinion it is necessary to make new analysis of the performance of the SRI under the current conditions. In this paper we analyzed the risk-adjusted return of the SRI stock market indices in comparison with the standard ones. Obtained results are consistent with most of the previous studies, i. e. no statistically significant difference between the SRI and conventional investments was found.

Key Words

investment performance, socially responsible investment, SRI, stock market indices

JEL Classification: G11

Introduction

Socially responsible investing (SRI) is a concept, where the investments are not evaluated only by their returns, risk and liquidity, but also by some additional, normative criteria. The roots of this idea lie in the religion – the first modern mutual fund which considered even the non-financial criteria was the Christian Pioneer fund founded in the year 1928 and this fund did not invest into the shares of the so called "sinful" companies [1]. Political reasons for the exclusion of some shares from the investment portfolio appeared in the seventies and the eighties of 20th century. As a response to the Vietnamese war the Pax World Fund was created in 1971 and its managers were banned to invest in the military industry. During the eighties, several mutual funds (both in Europe and in the US) avoided investing into the South-African assets due to the racist apartheid policy practiced by the government of this country [2].

The modern concept of SRI, which emerged in the nineties of 20th century, is no more as straightforward as the above actions. SRI is currently closely linked to the corporate social responsibility (CSR) concept. Similarly as the CSR with its triple-bottom line structure, SRI is also based on three groups of criteria – environmental (usually abbreviated as E, corresponding with the "Planet" pillar of the triple-bottom line), social (S, connected to the "People" pillar) and governance (G, corresponding mainly with the "Profit" pillar). On the other hand, despite the existence of a generally accepted conclusion (confirmed even by some international authorities, such as the United Nations with their Principles for Responsible Investment initiative – see [3]), that the responsible investing should reflect all three of these criteria, there is no "one and the only correct" form of it. Quite the opposite, there are many views on SRI, each of them emphasizing a specific element of the ESG criteria, depending on the preferences of a particular investor. The two major SRI initiatives, USSIF and EUROSIF, for example, recognize seven such views (also called "SRI strategies") [4].

Investment decision making, based on any of such strategies, has recently become more and more popular. According to the estimations made by the Forum for Sustainable and Responsible Investment, the total volume of assets managed in compliance with SRI principles in the North America, Europe, Asia, Africa and Australia reached at least USD 13.6 trillion as of December 31st 2011, which represented 21.8 % of the total volume of assets managed in the regions [5]. It is therefore obvious that SRI has become one of the leading innovations in the asset management.

As the popularity and importance of SRI have been increasing, a question about its financial performance arose. There have been plenty of studies which investigated whether responsible investments perform better, worse or the same as the conventional ones. Nevertheless, no generally accepted conclusion has been arrived at so far. The aim of this paper is a) to present a brief review of the current state of this ongoing discussion and b) to contribute to it with the results of our own research.

1. Current state of the research of the financial performance of SRI

Purely according to the standard financial theory, the performance of the portfolio consisting only of the "responsible" assets should be worse or, at its best, equal to the portfolio without such limitations. The reason is that the exclusion of the shares of the irresponsible companies means the reduction of the universe of the available combinations of the assets. Logically, it should not be possible to construct a better portfolio of such a restricted set of assets than of the original, more extensive one [6], [7].

On the other hand, the supporters of SRI argue that it could improve the performance of the portfolio in such a way that is not counted on by the standard portfolio theory.

According to their arguments, if the company reflects the concept of the corporate social responsibility, it is a signal of the high quality of its management. Social responsibility should therefore enable the SRI investor to pick out only the stocks of the well-managed enterprises and avoid the shares of the poorly-managed ones. In other words, respecting principles of SRI should guarantee that the firms, which (thanks to some previous successes) perform well at the moment, but whose irresponsible management could cause serious problems in the future, will be excluded from the portfolio. From this point of view SRI is not a restriction which prevents investor from managing his/her portfolio optimally. It is the additional source of information, which gives the responsible investor an advantage against the ordinary ones [7], [8].

As no generally accepted conclusion has been arrived at by means of a theoretical approach so far, the question of the financial performance of the SRI has to be solved through the analysis of empirical data. A number of empirical studies concerning this problem have recently appeared. These research studies usually investigate whether the risk-adjusted-return of some representative of the SRI is higher, lower or the same as in case of some appropriate non-SRI benchmark. As the representatives of the socially responsible investments and their benchmarks, either mutual funds or stock indices are used.

The research of the performance of mutual funds is much more numerous. As reported in several reviews and meta-studies (compare [9], [10], [11]), the obtained results are quite ambiguous and do not lead to any decisive conclusion. Quite the opposite, the number of the research studies, which reported better, worse or the same performance of the SRI funds as in case of their conventional peers is more or less equal.

Nevertheless, judging the financial returns of the socially responsible investments in comparison with the conventional ones on the basis of the performance of the mutual funds faces several serious methodological problems. Firstly, the performance of a mutual fund could be strongly affected by the experience and skills of its manager. The results obtained from the comparison of the normal and SRI funds could therefore suffer from serious distortions caused by the differences in the management of the funds. Of course it is possible to object that the expected value of the quality of the managers should be the same for both groups of funds. This argument is based on the presumption that the managers are indifferent to work either for the SRI or a conventional fund, though, which is rather questionable. According to the [12], the social responsibility of the company enhances its attractiveness for the potential employers. If the same effect functions even in favor of the SRI funds compared to the conventional ones (and there is no reason why it should not), the responsible funds will have advantage in recruitment, which will ultimately result into the discussed distortion.

The other problematic issue, which can lead to the distortion of the research results, is the height of fees. The performance of the mutual fund, cleansed of the amount of money charged by the fund for the purchase and maintenance of its shares, can significantly differ from the returns calculated only on the base of the price development and the dividend yields. Even the fund with the better performing portfolio of assets can therefore produce worse net return in case of charging higher fees, and vice versa.

Tab. 1 Review of the studies investigating the performance of the SRI indices

Author(s) of study and year of publication	Investigated entity	Years covered by study	Short description of study and its results
Sauer, 1997 [13]	Domini 400 Social Index	1986 – 1994	In general, the risk-adjusted performance of the Domini index seems to be slightly higher than in case of the two conventional benchmark indices. The differences are only marginal and statistically insignificant, though.
Statman, 2000 [14]	Domini Social Index	1990 – 1998	The risk-adjusted return of the Domini Social Index was insignificantly lower than of its benchmark.
Schröder, 2004 [15]	10 SRI indices covering US, European and global markets	from the creation of particular index till 2002	The investigated indices generally showed slightly (but not significantly) better performance than their conventional peers. Only one of them (Calvin index) significantly underperforms its benchmark.
Statman, 2005 [16]	4 US SRI indices	1990 – 2004	Compared to the benchmark S&P 500, the SRI indices performed insignificantly better. The relative performance of the SRI indices worsened with time.
Colisson et al., 2007 [17]	8 SRI indices of the FTSE family covering UK, US, European and global markets	1996 – 2005	In comparison with their FTSE benchmarks, the SRI indices performed better till the 2001, but worsened from this year on. Their complete risk-adjusted return is in fact the same as of their benchmarks.
Schröder, 2007 [18]	29 SRI indices covering US, European and global markets	from the creation of particular index till 2003	Out of the 29 investigated indices, only the performance of two of them differs from their benchmarks significantly, one in the positive and one in the negative way.
Consolandi et al., 2009 [19]	Dow Jones Sustainability Stoxx Index	2001 – 2006	The investigated index slightly underperforms its benchmark (DJ Stoxx 600), but this result is not significant and according to the author it is caused by large-cap bias.
Amenc, La Sourd, 2010 [20]	10 SRI indices covering European and global markets	2002 – 2009	Most of the SRI indices (the particular number depends on the used measure) performed slightly better than their benchmarks. Nevertheless, these outperformances are not statistically significant.
Huimin et al., 2010 [21]	7 SRI indexes covering the US market	2001 – 2009	The period in question was divided into three market regimes (defined by volatility and returns). The SRI indices in general performed slightly worse than the standard ones during the regime with low market volatility, but with the market volatility their relative performance increased. These effects are not significant, though.
Herrera, 2012 [22]	Mexican Sustainability Index	1991 – 2012	The SRI index has lower risk-adjusted returns during the investigated period.
Ortas et al., 2012 [23]	Brazilian Corporate Sustainability Index (BCSI)	2006 – 2010	BCSI performs the same as several conventional indices (including its official benchmark), but significantly worse than some others.

Source: own

Because the above mentioned issues reduce the reliability of the results obtained from the studies investigating the performance of the SRI funds, in our opinion it is better to use SRI indices for the research of the socially responsible investments. Thanks to the mechanical, on exact procedures based construction of the indices, these are immune to the above mentioned bias. As no fees are paid in case of the market indices, the second potential distortion is irrelevant as well. A brief summary of the academic studies investigating the performance of SRI indices can be found in the Tab. 1.

As could be seen from the presented review, out of the eleven researches, which compared the risk-adjusted returns of the SRI and conventional indices, four of them resulted slightly in favour of the SRI, while three against it. In the rest of the studies the performance of both groups of indices is either the same or the discovered difference is limited to a particular time period, respectively it shows up only for certain indices. What is more, there is, in general, a serious lack of the statistical significance. To sum up, not even the studying of the SRI indices has lead to any decisive conclusion in the matter of the performance of the SRI in comparison with the standard investments so far, but in general it seems that there is no general difference between them.

2. Performance of the SRI in the changed situation

Nevertheless, researches mentioned in Tab. 1 investigated the performance of SRI indices in the economic reality which was quite different from the current situation. Seven of the researches covered only the time period before the current global economic crisis. In the rest of them except the last one, the years hit by the crisis (i. e. the year 2008 and the following years) constitute only a marginal part of the whole investigated period and their importance for the overall result of the study in question is rather low. It is therefore not sure, whether the conclusions of such studies are valid even for the economy during and after the global crisis.

When it had became clear that the global economy (and especially its Euro-American part) was facing the greatest slump since the Great Depression, voices arose saying that this problem had been caused by the lack of ethics and responsibility in the business and that only by putting emphasize on these values it is possible to overcome the present crisis and avoid its recurrence in the future. According to some authors ([1], [24], [25], [26]) the concept of the social responsibility is the key factor which can help companies to get over the critical years. Unfortunately, it is beyond the scope of this paper to judge whether these statements of the social responsibility as a silver bullet are based on reality or whether they are only glossy phrases. Nevertheless, for the purpose of the SRI it is in fact not important whether they are true, but whether the people think that they are true. If people believe these arguments (regardless of their real validity), they would prefer the shares emitted by the socially responsible companies to the standard stocks, i. e. the demand for the SRI assets would rise. Because the prices of the stocks are constituted by the interaction of supply and demand, then (ceteris paribus) this belief will ultimately result in the growth of the price of the SRI assets. In other words, assuming the above introduced opinions become accepted by a sufficient part of the investors, a positive difference should emerge between the performance of the socially responsible and the conventional investment during the crisis. The aim of the empirical part of this article is to investigate whether this effect has really appeared, i e. whether the SRI has became more advantageous in the current economic situation.

3. Data description

Nine major SRI indices were chosen as the representatives of the socially responsible investments – three for the European, US and global market. The performance of each of them was evaluated in comparison with its official conventional benchmark. The chosen SRI indices (together with the short description of their principles) and their benchmarks are noted in Tab. 2.

Tab. 2 Investigated socially responsible indices and their benchmarks

<table>
<tr><th>Responsible index</th><th>Short description of the principle of the index</th><th>Benchmark index</th></tr>
<tr><td>FTSE4Good Europe</td><td rowspan="2">Indices combine both negative and positive screening. Tobacco producers and companies manufacturing military systems or components of nuclear weapons are excluded from this index. Other enterprises have to fulfil the set of the ESG criteria so that their shares could be included.</td><td>FTSE All-World Developed Europe</td></tr>
<tr><td>FTSE4Good Global</td><td>FTSE All-World Developed</td></tr>
<tr><td>KLD 400 Social Index</td><td>The mechanism of the construction of the index contains negative and positive screening. Producers of tobacco, alcohol and adult entertainment are excluded from the index, and so are firms connected to military industry, nuclear power and genetically modified organisms. The rest of the companies have to perform well in the set of ESG criteria in order to be included.</td><td>S&P 500</td></tr>
<tr><td>MSCI SRI Europe</td><td rowspan="3">Indices mainly concentrate on the negative screening – producers of tobacco, alcohol and adult entertainment are excluded from the index, as well as firms connected to military industry, nuclear power and genetically modified organisms. Positive screening is also partially respected; included firms are not allowed to perform badly in the ESG criteria.</td><td>MSCI Europe</td></tr>
<tr><td>MSCI SRI Global</td><td>MSCI World</td></tr>
<tr><td>MSCI SRI North America</td><td>MSCI North America</td></tr>
<tr><td>MSCI ESG Europe</td><td rowspan="3">Indices work on the best-in-class principle. I. e. the companies with the best results in the set of environmental, social and governance criteria within every sector are included.</td><td>MSCI Europe</td></tr>
<tr><td>MSCI ESG Global</td><td>MSCI World</td></tr>
<tr><td>MSCI ESG North America</td><td>MSCI North America</td></tr>
</table>

Source: Own

As our intention was to investigate, whether there seem to be any changes in the attitude of the investors toward the SRI caused by the crisis, we chose April 2009 as the start of our study period. After the several signals of problems, which appeared during 2007, the crisis fully impacted the financial markets in 2008. During this single year, the Dow Jones Industrial Average index loss was 33.84 % of its value, while in case of the S&P 500 it was 38.49 %. In the European markets the situation was not better, with the 31.33 % decline of FTSE 100 and 45.25 % decrease of EURONEXT 100. Both in the US and in Europe the bottom was touched during March 2009. Setting the beginning of the study on the following month should therefore ensure that the results would be cleansed of the huge drop caused by the first panic and would really show only the reaction of the investors on the new situation. The end of the research was planned for 1th January 2013. The data for the first trading day of every month during the investigated period were used, which means the set of 46 values for every index.

Monthly logarithmic returns for each index were calculated. So as to calculate the average monthly return, geometric mean was used. The standard deviation of the monthly returns served as the measure of their variability for each index. In order to compare the risk-adjusted return of the socially responsible indices to their conventional benchmarks, we used the extended version of the Sharpe ratio known as the Excess standard-deviation-adjusted return ("eSDAR" in short) indicator [14], [16]:

$$eSDAR = R_F + \left(\frac{R_{SRI} - R_F}{\sigma_{SRI}} \right) \cdot \sigma_B - R_B \,, \tag{1}$$

where R_F is the risk-free interest rate (1M EURIBOR was used for the indices concerning the European market and 1M USD LIBOR for the global and North American indices), R_{SRI} is the mean monthly return on the socially responsible index, R_B is the mean monthly return on the benchmark index, σ_{SRI} is the standard deviation of the returns on the SRI index and σ_B is the standard deviation of the returns on the benchmark index.

In this case the eSDAR indicator means the excess return of the socially responsible index over the conventional one, where the SRI index is transformed to have the same standard deviation as its benchmark. If both the socially responsible and the conventional indices show the same return and risk, the eSDAR will equal zero. If not, the difference (assuming all returns are in percentage) is the gap between the return on the SRI and the standard index expressed in percentage points.

4. Results and discussion

Results for the particular indices are noted in Tab. 3.

Tab. 3 Excess standard-deviation-adjusted returns on SRI indices

SRI index	R_{SRI} [%]	σ_{SRI}	R_B [%]	σ_B	R_F [%]	eSDAR
FTSE4Good Europe	0.888	4.625	0.726	6.715	0.678	0.257
MSCI SRI Europe	1.066	4.210	0.900	4.277	0.678	0.172
MSCI ESG Europe	0.984	4.133	0.900	4.277	0.678	0.094
KLD 400 Social Index	1.138	4.276	0.996	5.320	0.260	0.357
MSCI SRI North America	1.103	4.296	1.188	4.458	0.260	-0.053
MSCI ESG North America	1.137	4.519	1.188	4.458	0.260	-0.063
FTSE4Good Global	0.903	5.579	1.043	5.351	0.260	-0.165
MSCI SRI World	0.987	4.889	1.008	4.930	0.260	-0.014
MSCI ESG World	1.000	4.960	1.008	4.930	0.260	-0.012

Source: Own computation

As can be seen from Tab. 3, every computed eSDAR differs from zero, i. e. it could seem that there are some variances between the risk-adjusted returns on the socially responsible and the standard indices. The observed differences appear both in the positive and in the negative direction and are therefore not consistent with the above formed hypothesis that the global crisis could lead to the shift of the investors towards the SRI. But the question is whether these differences are statistically significant, or whether they are caused only by a random distortion. The student's T-test was used so as to investigate, whether the expected value of the eSDARs of the SRI indices is significantly different from zero. The test statistics have the following form:

$$t_{stat} = \frac{X_{AVG} - \mu_0}{\sigma} \cdot \sqrt{n}\ , \qquad (2)$$

where X_{AVG} is the average of the sample, μ_0 is the tested expected value, σ is the standard deviation of the sample and n is the count of the observations. A two-tailed T-test on the alpha = 5 % was used with the null hypothesis $\mu_0 = 0$. As could be seen from the Tab. 4, the conducted test does not allow us to reject the null hypothesis and we therefore cannot claim the risk-adjusted performance of the SRI indices to be significantly different from the conventional ones during and after the crises of the financial markets.

Tab. 4 Result of the T-test

X_{avg}	0.064
σ	0.170
μ_0	0
n	9
$t_{(1-0.05/2;\ 8\ D.F.)}$	2.306
W_{crit}	$(-\infty; 2.306) \cup (2.306; +\infty)$
t_{stat}	1.124

Source: Own computation

Conclusion

Social responsible investing is an extremely successful financial innovation whose popularity has been rapidly growing during the last decade. Nevertheless, the question whether this concept is also financially advantageous for the investor has not been solved so far, because the conducted studies have brought rather ambiguous results. What is more, they mainly focused on the period before the global financial crisis, when the state of economy was different from the current situation in many respects. Nowadays influential voices can be heard saying that the crisis taught us that the socially responsible behavior is the future of the business. The main aim of our paper was therefore to find out whether these ideas were reflected even on the financial markets – i. e. to investigate the risk-adjusted returns on the socially responsible investments in comparison with the conventional ones during the period following the market crash in the year 2008 and early in the year 2009. As for the research method, we chose the comparison of the performance of the SRI and the standard stock market indices using the Excess standard-deviation-adjusted ratio.

According to the obtained results the risk-adjusted returns of the SRI differ slightly from the conventional investments. The post-crisis superiority of the socially responsible investments over the standard ones has not yet been confirmed, though. Firstly, the variances between the performance of the responsible and standard assets appeared in both directions, not only in favor of the SRI. Secondly, these differences are not statistically significant. It means that from the financial point of view the SRI remains to be the equal alternative to the conventional investments even under the current conditions. Allocating money to the "responsible" assets does not bring any advantages to the investor, but on the other hand, it does not require any sacrifice either. The results of our study are therefore consistent with the previously conducted research studies.

References

[1] PUASCHUNDER, J. On the Emergence, Current State and Future Perspectives of Socially Responsible Investment (SRI) [online]. *Harvard University Working Papers*, 2011, no. 2011-001. [cit. 2013-04-01]. Available from WWW: <http://www.wcfia.harvard.edu/sites/default/files/Puaschunder_Emergence_Current_State_Future_SRI_2011_7.pdf>

[2] RENNEBOOG, L. et al. The Price of Ethics and Stakeholder Governance: The Performance of Socially Responsible Mutual Funds. *Journal of Corporate Finance*, 2008, **14**(3): 302 – 322. ISSN 0929-1199.

[3] *About the six principles for responsible investment* [online]. [cit. 2013-04-01]. Available from WWW: <http://www.unpri.org/about-pri/the-six-principles/>

[4] *European SRI study 2012* [online]. Brussels: Eurosif, 2012. [cit. 2013-04-01]. Available from WWW: <http://www.eurosif.org/research/eurosif-sri-study>

[5] *Global Sustainable Investment Review 2012* [online]. Brussels: Global sustainable investment alliance, 2012. [cit. 2013-04-01]. Available from WWW: <http://gsiareview2012.gsi-alliance.org/#/1/>

[6] BLANCHETT, D. Exploring the Cost of Investing in Socially Responsible Mutual Funds: An Empirical Study. *Journal of Investing*, 2010, **19**(3): 93 – 103. ISSN 1068-0896.

[7] DERWALL, J., KOEDIJK, K. Socially Responsible Fixed-income Funds. *Journal of Business Finance & Accounting*, 2009, **36**(1 – 2): 210 – 229. ISSN 0306-686X.

[8] CORTEZ, M. et al. The Performance of European Socially Responsible Funds. *Journal of Business Ethics*, 2009, **87**(3): 573 – 588. ISSN 1573-0697.

[9] *Demystifying Responsible Investment Performance* [online]. Asset Management Working Group of the United Nations Environment Programme Finance Initiative and Mercer, 2007. [cit. 2013-04-01]. Available from WWW: <http://www.unepfi.org/fileadmin/documents/Demystifying_Responsible_Investment_Performance_01.pdf>

[10] SJOSTROM, E. *The Performance of Socially Responsible Investment: A Review of Scholarly Studies Published 2008 – 2009* [online]. Stockholm: AP7, 2011. [cit. 2013-04-01]. Available from WWW: <http://ap7.se/PageFiles/1095/The Performance of SRI.pdf>

[11] RATHNER, S. *The Performance of SRI Funds: A Meta-Analysis* [online]. Salzburg> University of Salzburg, 2012. [cit. 2013-04-01]. Available from WWW: <http://www.uni-salzburg.at/pls/portal/docs/1/1759214.PDF>

[12] GREENING, D. W., TURBAN, D. B. Corporate Social Performance as a Competitive Advantage in Attracting a Quality Workforce. *Business and Society*, 2000, **39**(3): 254 – 280. ISSN 1552-4205.

[13] SAUER, D. The Impact of Social-Responsibility Screens on Investment Performance: Evidence from the Domini 400 Social Index and Domini Equity Mutual Fund. *Review of Financial Economics*, 1997, **6**(2): 137 – 149. ISSN 1058-3300.

[14] STATMAN, M. Socially Responsible Mutual Funds. *Financial Analysts Journal*, 2000, **56**(3): 30 – 39. ISSN 0015-198X.

[15] SCHROEDER, M. The Performance of Socially Responsible Investments: Investment Fund and Indices. *Financial Markets and Portfolio Management*, 2004, **18**(2): 122 – 142. ISSN 1555-497X.

[16] STATMAN, M. *Socially Responsible Indexes. The Journal of Portfolio Management*, 2006, **32**(3): 100 – 109. ISSN 1095-4918.

[17] COLLISON, D. et al. The Financial Performance of the FTSE4Good Indices. *Corporate Social Responsibility and Environmental Management*, 2007, **15**(1): 14 – 28. ISSN 1535-3966.

[18] SCHROEDER, M. Is There a Difference? The Performance Characteristics of SRI Equity Indices. *Journal of Business Finance & Accounting*, 2007, **34**(1 – 2): 331 – 348. ISSN 0306-686X.

[19] CONSOLANDI, C. et al. Global Standards and Ethical Stock Indexes: The Case of Dow Jones Sustainability Stoxx Index. *Journal of Business Ethics*, 2009, **87**(1): 185 – 197. ISSN 1573-0697.

[20] AMENC, N., LE SOURD, V. *The Performance of Socially Responsible Investment and Sustainable Development in France: An Update after the Financial Crisis* [online]. EDHEC Risk-Institute, 2010. [cit. 2013-04-01]. Available from WWW: <http://faculty-research.edhec.com/servlet/com.univ.collaboratif.utils.LectureFichiergw?ID_FICHIER=1328885973639>

[21] HUIMIN, L. et al. Socially Responsible Investment in Good and Bad Times. *International Research Journal of Finance and Economics*, 2010, **5**(54): 152 – 165. ISSN 0022-1082.

[22] HERRERA, H. *Decomposition of the Stock Returns in the Sustainable Index of the Mexican Stock Exchange* [online]. 2012. [cit. 2013-04-01]. Available from WWW: <http://congreso.investiga.fca.unam.mx/docs/anteriores/xvii/docs/K02.pdf>

[23] ORTAS, E. et al. Does Socially Responsible Investment Equity Indexes in Emerging Markets Pay off? Evidence from Brazil. *Emerging Markets Review*, 2012, **13**(4): 581 – 597. ISSN 1566-0141.

[24] ARGANDONA, A. Can Corporate Social Responsibility Help us Understand the Credit Crisis? [online]. *IESE Research Papers*, 2009, no. D/790. [cit. 2013-04-01]. Available from WWW: <http://www.iese.edu/research/pdfs/di-0790-e.pdf>

[25] SOUTO, B. Crisis and Corporate Social Responsibility: Threat or Opportunity? *International Journal of Economic Science and Applied Research*, 2009, **2**(1): 36 – 50. ISSN 1791-5120.

[26] PETERS, A. *Pathways out of the Crisis: CSR as a Strategic Tool for the Future* [online]. Berlin: Bertelsmann Stiftung, 2009. [cit. 2013-04-01]. Available from WWW: <http://www.csr-weltweit.de/uploads/tx_jpdownloads/CSR-Trendstudie_Wege_aus_der_Krise_final_EN_final.pdf>