

THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY ON THE INVESTMENT ATTRACTIVENESS OF THE RUSSIAN COMPANIES

Corporate social responsibility (CSR) and environmental responsibility affect companies' economic performance, which has been at the centre of research in the last decades. This study has shown that corporate social reporting as one of the key CSR areas mitigates information asymmetry and enhances the company's reputation by reducing risk and uncertainty in investors' assessment of the company's internal environment. Our research findings have demonstrated that disclosure of CSR information can influence investment attractiveness of companies and decrease the cost of equity capital. In the last decade, Russian industry has accumulated substantial positive experience in the implementation and positioning of CSR technologies and this experience has yet to be assessed. In this paper, we have used a sample of social reports of eighteen Russian companies published between 2004 and 2014 and applied econometric modelling methods to reveal the influence that CSR disclosure has on these companies' equity capital and their investment attractiveness. We also have conducted the content analysis of these reports to research the information about staff training, social policy, philanthropy and environmental responsibility. Unlike other studies, our results show a comparatively moderate impact of disclosure on the cost of equity capital. We also have found that different variants of such disclosure can have a mixed effect on the investment attractiveness of companies. We have developed practical guidelines for the management of Russian metallurgical, oil and gas companies on how to increase their investment attractiveness, in particular, how to make a prudent choice of CSR information for disclosure. This study is unique for the Russian practice of measuring effectiveness of CSR as it is based on a sample of the largest industrial enterprises.

Keywords: corporate social responsibility, information disclosure, cost of equity capital, investment attractiveness, metallurgy, oil and gas industry, industry

Introduction

Industry plays a significant role in the Russian economy and industrial enterprises serve as the key subjects of corporate social responsibility (CSR), providing social and environmental security. In the last decades, the national industry has been dominated by the oil and gas and metallurgical sectors, which employ most workers and thus shape the socio-economic situation in the vast majority of Russian regions. Although in planned economy, functional models of enterprises also featured some elements of CSR, many authors reasonably point out that it is an exclusively Western phenomenon, which stems from the need to increase business transparency and to evaluate companies' environmental effectiveness and adherence to high ethical standards [1]. Unlike many English and American models of organization and development of business processes, in Russia and other countries with the transitional economy, elements of CSR have started to be integrated into corporate management practices only recently and their influence on industrial business still requires further research. In the meanwhile, large industrial enterprises determine much of the future social and economic development of certain Russian regions. Some researchers believe that as the country's institutional environment is underdeveloped and fails to provide social security, the relationships between large industrial businesses and local communities become more important and influence the national economy [5].

A number of contemporary studies of CSR focus on financial, economic and environmental effects that the principles of socially responsible behaviour exert on companies' activities. Subjects of corporate management are primarily interested in financial gains and in obtaining evidence that would confirm the effect of their activities. Since the 1980s, however, empirical studies have not brought any definitive proof that CSR practices have a direct positive or negative effect on companies' economic performance [1, 6, 7]. The social reports of companies' reflect the main principles and means of CSR, which are targeted at enhancing these companies' social performance. The information in these reports reveals the level of corporate social responsibility and the technologies applied to manage it. In this paper, we use a sample of eighteen largest Russian public companies to study the effects of CSR information disclosure on these companies' investment attractiveness and the cost of their equity capital.

Impact of CSR information disclosure on the external environment

CSR as a separate research field started to evolve in the second half of the 1980s [8]. It dealt primarily with the information about how business entities affected their internal and external social environment. These studies originated from those of cost and management accounting, which considered CSR in addition to financial information. According to modern theory, CSR reporting is a part of information space that underlies the social dialogue between the company and the community [9]. In the 1980s, there was no systematic understanding as to what information should be included in social reports.

In the 1990s, there was a considerable upswing in CSR activity, which led to the emergence of new CSR areas, in particular, those related to environmental protection and staff training. In the same period, reporting in certain industries became more uniform [9, 10]. According to the Russian Union of Industrialists and Entrepreneurs, in Russia a similar trend was observed a decade later, that is, in the mid-2000s. This was a period when the largest Russian industrial holdings continued accumulating their capital, which extended the boundaries of these companies' social responsibility and, therefore, the range of stakeholders started to include not only the shareholders but also employees and other people in the region [2, 5]. While in developed countries, reporting practices of business entities have changed dramatically in the last decades, in Russia only a few companies publish their reports on a regular basis because they are sceptical about the benefits of reporting. Thus, it seems empirically important to find the connection between the disclosure of certain information and its effects.

Theoretically, more extensive disclosure of CSR information should serve as a powerful signal for the external environment and mitigate the information asymmetry between various groups of internal and external stakeholders [11]. On the one hand, companies engaging in CSR reporting do not only gain a better access to capital by influencing their potential investors but also decrease investment risks and enhance transparency [10]. Thus, the company's information disclosure should significantly affect its investors' decision-making since it demonstrates the company's economic viability, sustainability of development and investment attractiveness.

This work pursues two main research objectives: firstly, social reporting gives us an idea about which kinds of social programs the company implements and which kinds of CSR technologies it applies; secondly, reporting provides us with an insight into the way the company positions its involvement in different areas of social activity. The latter is especially interesting since it allows us to make a qualitative assessment of the company's social activity. Therefore, we can assess disclosed information to find out how developed are local CSR systems. In our research, we will assume that companies report the information about the existing CSR programs objectively and accurately and that they seek to deliver information to all categories of stakeholders, especially potential investors.

Corporate social responsibility and cost of equity capital

A significant body of literature focuses on external economic effects of CSR programs and CSR information disclosure [1, 7, 12–16]. These effects are usually associated with a market capitalization of companies and with the cost of their equity capital [17–24]. The cost of equity capital (C_E) is the minimum acceptable rate of return that investors expect to receive when providing capital to the company. In other words, it is the discount rate that investors apply to expected future cash flows to arrive at a current stock price [25]. Since companies seek to cut costs on attracting fresh capital and try to gain a cheaper access to financial resources, the reduction in the cost of equity capital is likely to have a positive economic effect because it would stimulate investment activity of potential shareholders.

A number of studies demonstrate a stable positive correlation between financial indicators, the cost of equity, CSR disclosure and the overall social performance of businesses. Becchetti, Di Giacomo, and Pinnacchio [13] argue that the focus of corporate activity has shifted from shareholders' wealth maximisation to interests of stakeholders and that the firms that drop out of CSR ratings face considerable financial difficulties and lose some of their competitive advantages. Thus, all kinds of CSR activities are usually aimed at enhancing the company's value [26]. At the same time, Cao et al. seek to prove that the company's reputation has a direct influence on the cost of equity capital and investor recognition [23]. El Ghouli et al. use the sample of 12,915 American firms in the period between 1992 and 2007 to show that the companies which were actively engaged in CSR exhibited cheaper equity financing [17]. Some authors find evidence that continuous investment in corporate social responsibility has a

positive effect on outside investors' perception of the company and lead to the lower cost of capital [20, 21]. Another important aspect of CSR disclosure is that it reduces non-diversifiable risks or the uncertainty involved in investment decisions and investors' monitoring costs [19].

A significant problem to be considered is that different types of disclosure may have mixed effects on the cost of equity capital [25]. Thus, in this study, we are dealing with specific areas of disclosure associated with the internal (employee-oriented policies) and external environment (charities and participation in the life of the local community, environmental policies). Therefore, the main hypothesis of this research will be as follows:

Hypothesis 1. Although investors generally use sector-specific indicators to gauge companies' performance (for example, raw materials depletion in mining and oil and gas industries; information about the quality of corporate management and so on), they also consider such indicators as CSR disclosure, which reduces investment risks and, therefore, the cost of equity capital.

To test our hypothesis we will make the following assumptions for modelling:

- industrial enterprises rely primarily on social reporting and the information about the dynamics of the company's intellectual potential;

- social reporting serves as a crucial source of non-financial information that allows external stakeholders to assess the company's level of social responsibility according to various qualitative and quantitative parameters;

- companies determine their level of CSR information disclosure by choosing which areas and indicators of their social activity to make public and by pointing out specific facts of their social programs in the reviewed period.

It is natural that a large number of factors, many of which can hardly be assessed quantitatively, shape the cost of capital. In this case, apart from the target indicators of CSR, we will consider the impact of factors related to the internal (company size, financial situation, social responsibility) and external environment (the Tobin's Q ratio). One of the significant factors of internal environment is the company's financial sustainability, which can be assessed through a number of financial indicators [18, 21]. One of the commonly accepted indicators is the equity to debt ratio in the company's assets, or the company's financial leverage.

Hypothesis 2. The cost of equity capital has a positive correlation with the equity to debt ratio in the overall book value of capital since the equity to debt ratio shows the level of investment risks.

The Tobin's Q ratio calculated as the market value of a company divided by the replacement

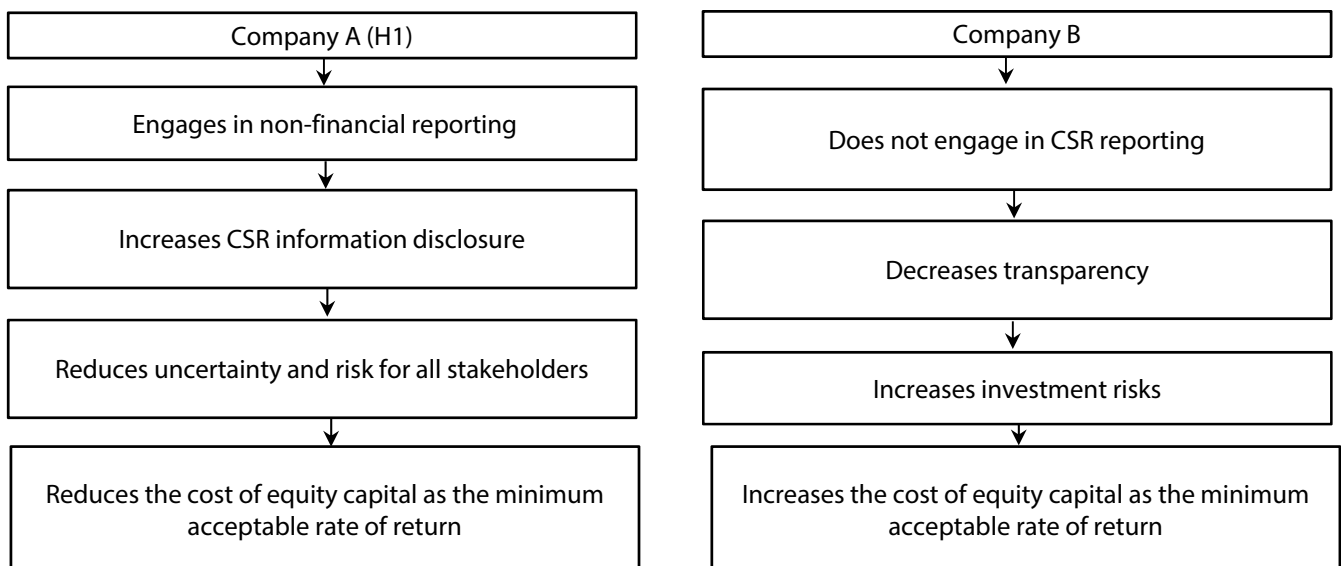


Fig. 1. Generation of hypothesis 1 (H1) for companies A and B

value of the firm's assets is often regarded as a way of assessing the intellectual capital of the firm because investors perceive it as an extra sign of the high quality of innovative business processes in the organization [17]. Furthermore, from the financial point of view, the Q ratio demonstrates that other players on the market value this company's assets and are interested in investing in it.

Hypothesis 3. The cost of equity capital has a negative correlation with the Q ratio, which reflects the company's financial growth potential in the short term (the Q ratio is calculated as the market value of a company divided by the replacement value of the firm's assets in the given period). In other words, the higher the company's market value is in comparison to the book value of the assets, the higher is the probability that investors will be willing to put up with extra risks and invest their funds in this business.

In Russia, a number of industries are known to have higher investment attractiveness than others since their investment risks are lower due to certain external factors. These factors include orientation towards export and independence from unstable internal markets.

Hypothesis 4. The cost of equity capital for industries with high investment attractiveness is lower than for those with low investment attractiveness due to certain characteristics of the national economic development (control variable). As for the Russian market, the highest investment attractiveness is characteristic of companies of oil and gas and metallurgical industries.

Methodology

In order to verify our hypotheses we used a linear regression model including quantitative and qualitative variables:

$$C_{En} = a_0 + a_1 I_{int(n-1)} + a_2 I_{loc(n-1)} + a_3 I_{ecol(n-1)} + a_4 K_{Tn} + a_5 \ln A_n + a_6 L_n + \sum b_i S_{i,n}, \quad (1)$$

where C_{En} is the cost of equity capital in the given year n , unit fractions; a_i, b_i are regression coefficients for quantitative and qualitative variables; $I_{int(n-1)}, I_{loc(n-1)}, I_{ecol(n-1)}$ correspond to the quantitative estimation of disclosure of internal programs of social responsibility, interaction with the local community and environmental responsibility respectively (these indicators are estimated according to the reports published in the given period and are used to consider the effect of delayed disclosure). '1' means that the indicator was disclosed and '0', that the indicator was not disclosed in the year $n-1$ (taking into the account the effect of delayed disclosure). In this equation K_{Tn} is the Tobin's Q ratio calculated as the ratio of the market to the book value of assets of the given enterprises in the given year n ; $\ln A_n$ is the logarithm of book value of assets, which shows the size of the enterprise in the given year n ; L_n is the debt to equity ratio in the given year n , unit fractions; $S_{i,n}$ is the type of industry (oil and gas, energy, chemical or metallurgical) in the given year n , qualitative variable.

To test our hypotheses we used a longitudinal sample based on the open data about seventeen business entities from four industries from open sources. We have chosen the eighteenth company—'Aeroflot—Russian Airlines' as the control object (see Table 1). The study used two information sources: the Moscow Exchange (the data on trade in equities) and the available financial and non-financial reports (official web-sites of the companies in question with the total number of observations 157).

The cost of equity capital C_E in equation (1) is the minimum rate of return required by potential investors to allocate their funds. The general theory of investment requires that we should take into account the estimation of alternative investment with the minimum (risk-free) rate of return and the risk allowance associated with investing in this particular enterprise. The higher this indicator is, the bigger risk is acceptable for external investors but at the same time, it means that the company will have to produce a higher return on equity.

Studies of the cost of equity capital use several alternative models, which can be divided into two big classes [25, 27]. The first class of models is based on the Capital Asset Pricing Model (CAPM), which provides a methodology for quantifying risk and translating that risk into the expected return on equity capital when looking for alternative ways to invest. The second class of models is based on computing the internal rate of return that equates the market's expectation of future cash flows to current stock price. The models of the second class use indicators of the current value of equities and experts' forecasts regarding the expected rate of return. Since the models of the second class usually rely on expert estimates, which are difficult to access and are predominantly subjective, we will be using models of the first group. Therefore, in order to estimate the cost of equity capital we will apply the following CAPM-model:

$$C_{E_i} = R_i + \beta_i [E_R - R_i], \quad (2)$$

Periods when the reporting data were available and the number of observations calculated according to data availability

Companies and the number of observations	Period when social, annual and environmental reports were available	Period when the data from the Moscow Exchange were available for computing beta-coefficients	Researched period
Norilsk Nickel (11)	2003–2014	2004–2015	2004–2014
Polus Zoloto (9)	2004–2009	2006–2015	2006–2014
Magnitogorsk Iron and Steel Works (9)	2005–2015	2006–2015	2006–2014
Severstal (10)	2004–2014	2005–2015	2005–2014
NLMK (9)	2005–2014	2006–2015	2006–2014
Gazprom (15)	2002–2014	2000–2014	2000–2014
Gazprom Neft (Sibneft) (10)	2003–2014	2005–2015	2005–2014
LUKOIL (11)	2003–2012	2004–2015	2004–2014
Tatneft (11)	2005–2014	2004–2015	2004–2014
Novatek (10)	2005–2013	2005–2015	2005–2014
Rosneft (9)	2006–2013	2006–2015	2006–2014
Bashneft (3)	2009–2013	2012–2015	2012–2014
Surgutneftegas (4)	2011–2013	2004–2015	2011–2014
FGC UES (7)	2007–2013	2008–2015	2008–2014
Inter RAO Group (7)	2011–2013	2008–2015	2008–2014
Uralkali (7)	2008–2014	2008–2015	2008–2014
Phosagro (4)	2011–2015	2011–2015	2011–2014
Aeroflot — Russian Airlines (11)	2004–2014	2004–2015	2004–2014

where R_i is a risk-free rate of return determined as a yield on public bonds; E_R is an expected rate of return for the group of companies in the given period; $E_R - R_i$ is a risk premium for a specific enterprise; β_i is a beta-coefficient corresponding to the non-diversifiable risk of investment in this enterprise.

Coefficient β_i was estimated as a coefficient of the variable in the equation of regression with the following free variable:

$$\delta M = \beta_0 + \beta_i \times \delta M_{A_i}, \quad (3)$$

where δM is the daily variation of the stock index at the stock exchange where the equity of this enterprise is traded; δM_{A_i} is the daily variation of the equity value in the given period.

Therefore, β_i can be calculated as

$$\beta_i = \frac{\text{cov}(\delta M, \delta M_{A_i})}{\sigma_{ge}^2}, \quad (4)$$

where σ_{ge}^2 is a dispersion of return on equity of the given group of companies. The data for evaluating the indicators in equations (3) and (4) were provided by the trade results archives on the MICEX's official web-site; data for evaluating financial coefficients in equation (1) were taken from reports prepared by companies under the IFRS Standards.

We applied our own scoring system to assess information disclosure. We identified three large groups of social activity areas that were covered by the reports:

I. Disclosure of information on internal social responsibility.

1. Employee training and development (total score 4 points).

1.1. The number (percentage) of employees who underwent training (1 point).

1.2. Investment in training (1 point).

1.3. Training and development programs (in different areas) (1 point).

1.4. Programs of investment in health capital (1 point).

2. Enhancing employment attractiveness (total score 3 points).

2.1. Housing policy, programs for employees (1 point).

- 2.2. Youth programs (1 point).
- 2.3. Programs for adaptation of employees (1 point).
- II. Disclosure of information on interaction with the local community.*
3. Charities and external social investment (total score 3 points).
 - 3.1. Areas of investment (1 point).
 - 3.2. Scale and scope of philanthropy (1 point).
 - 3.3. Assessment of the impact on local communities, social performance (1 point).
4. Application of the best experience in the industry and the related sectors (1 point)
5. Disclosure of the company's experience (1 point).
6. Disclosure of social policy and means of social responsibility (1 point).
- III. Disclosure of information on social responsibility.*
7. Environmental impact assessment (for example, emissions) (1 point).
8. Assessment of the future environmental development (1 point).
9. Amount of investment in environmental development (1 point).

This methodology allows us to evaluate sixteen indicators according to a sixteen-point scale. The model uses a relative value indicator calculated as a ratio of the actual score to the maximum possible score.

Table 2

Keywords used for content-analysis of social, annual and environmental reports

Disclosure indicator	Keywords, notes
1.1. Percentage of employees who received training	Employee [train]ing, percentage of those trained, received training
1.2. Investment in training	Training [cost]s, [cost]s, [invest]ment in training. This indicator was included into the reports on gross staff expenditures, with the exception of salary
1.3. Training and development [program]s	[Train]ing [program]s, areas of training, advanced training, retraining, health and safety
1.4. Programs of investment in employees' health	Wellness, programs, recreation of employees, health resort treatment, nutrition
2.1. Employee housing policy	Housing, improvement, housing construction, [mortgage] programs
2.2. Youth programs	[Youth] policy, young workers policy, students, [student]s traineeship, company-based traineeships
2.3. Programs for employees' adaptation	[Adapt]ation of employees, young employees. This indicator was considered only in the context of staff management policy
3.1. Philanthropy	[Charit]ies, donations, [charity] programs, [support] of the local community
3.2. Volume of charitable contributions	Charitable contributions, investments in the community
3.3. Assessment of the impact of charity on the community	Local [community], public, [sport]s events. Assessment of the opportunities and benefits gained by the community
4. Application of the company's experience in this industry	[Experience] of social responsibility. It is indicated that this company's experience in CSR responsibility is used by other enterprises in this industry
5. Declaration of the company's own experience	[Experience] of social responsibility, [realiz]ation. This indicator reflects reporting of the results of charity and personnel development programs implementation with references to mass media
6. Disclosure of social policy	Social [policy]. The report includes a separate section on general principles of social responsibility
7. Assessment of the impact on the environment (for example, volume of emissions)	[Environment], environmental effect, ecology, [environment]al context, [negative] impact on the environment
8. Assessment of the future environmental development	Environmental [problem]s, [develop]ment, [emission] reductions, environmental protection
9. Amount of investment in conservation efforts (or payment for environmental damage)	[Invest]ments, [conserv]ation, [environment]al, [payment], [fine]s for environmental [damage]

To identify the facts of information disclosure we conducted content-analysis of reports. For each of the CSR areas, we found keywords that we used to search the full-text electronic versions of social, annual and environmental reports published on the official web-sites of the companies in question.

If the keywords were found in the given context, it signified the fact of information disclosure (this fact was used to assess dummy variable in regression analysis). The search in full-text versions of reports took into account morphological variants of keywords (see Table 2, the parts of the words used for direct search are given in square brackets). For each of the keywords, we also checked the context of their usage: for instance, in order to signify disclosure the word 'adaptation' had to be used in the context of personnel management.

We used the proposed model to conduct regression analysis with the help of IBM SPSS Statistics software. The results are shown in Table 3. The impact of the variables of disclosure was calculated with a one-year lag, that is, for each value of equity cost (n th year) the estimates of disclosure were given for the previous year ($[n - 1]$ th year) in order to take into account the effect of delayed disclosure. In the first model we analyzed metallurgical companies; in the second, oil and gas companies; and then we analyzed the total sample of companies.

Table 3

Results of the regression analysis according to the proposed model for all companies

Variables	Metallurgical companies			Oil and gas companies			Total sample		
	Total	Standard error	t-statistic	Total	Standard error	t-statistic	Total	Standard error	t-statistic
(Constant)	0,347***	0,098	3,541	0,432***	0,080	5,377	0,132	0,013	10,667
Estimation of disclosure 1. Internal information about CSR	-0,002***	0,001	-3,390	-0,003**	0,001	-2,602	-0,006***	0,002	-3,281
Estimation of disclosure 2. Interaction with the local community	-0,004	0,007	-0,487	0,002	0,003	0,761	0,005	0,005	0,996
Estimation of disclosure 3. Information about environmental responsibility	-0,004***	0,001	-4,062	-0,005	0,004	-1,263	-0,006*	0,002	-2,395
Tobin's Q ratio (ratio of the market value to book value)	-0,018*	0,009	-2,138	0,010**	0,004	2,246	-0,001***	0,000	-3,701
Logarithm of the company's assets (company's size)	-0,009	0,013	-0,678	0,008***	0,003	2,764	0,004	0,002	1,878
Debt to equity ratio	-0,084*	0,041	-2,035	-0,008	0,022	-0,364	0,012***	0,004	3,268
Oil and gas industry	—	—	—	—	—	—	-0,021*	0,009	-2,427
Metallurgical industry	—	—	—	—	—	—	-0,016***	0,005	-3,298
Chemical industry	—	—	—	—	—	—	-0,004	0,003	-1,409
Energy industry	—	—	—	—	—	—	0,017***	0,003	4,949
N — number of observations	47			73			145		
Normalized R ²	0,208			0,197			0,239		
F-statistic	8,142			7,841			9,424		
Durbin-Watson statistic	1,795			1,851			1,749		

Note to Table 3: *** — the coefficient is significant at the level of 1 %; ** — 5 %; and * — 10 %.

Results and Discussion

Our theoretical overview has shown that disclosure of CSR information, like financial reporting, is targeted at mitigating the level of information asymmetry and providing investors with reliable data. Thus, CSR reporting can help companies indirectly influence their investment attractiveness and their reputation. Our empirical research has proven our hypotheses at least partially true. Experience has shown that the impact of information disclosure on investment attractiveness is not quite straightforward and that social reporting is just one of the many factors shaping the capital market situation and contributing to a reduction in the cost of equity. Estimation of the coefficients in the linear regression equation has led us to the following conclusions.

Hypothesis 1 was confirmed only partially. In general, the results of our analysis have shown that the increasing disclosure of CSR information reduces the cost of equity capital, that is, has a positive effect on the company's investment attractiveness. However, as expected, different information has a different influence on the cost of equity. Our analysis of the sample has demonstrated that disclosure of information on interaction with the local community in some charity programs either has no effect on the cost of equity or in some cases has a slightly negative impact on investment attractiveness. More detailed disclosure of information on the internal social environment and environmental responsibility programs, on the contrary, enhances reduction in the cost of equity.

Hypothesis 2 was confirmed. For the companies in question, the reduction in the cost of equity was associated with the reduction in the debt to equity ratio. Therefore, this factor plays a certain role in the assessment of companies' investment attractiveness. It is particularly important for metallurgical companies but for oil and gas companies its role is practically insignificant.

Hypothesis 3 was confirmed. Disclosure of social reports affects investment attractiveness in the same way as proxy indicators of intellectual capital such as the Tobin's *Q* ratio. An increase in this indicator by one unit leads to a moderate reduction in the cost of equity capital – by 0.1 %.

Hypothesis 4 was confirmed. Each of the industries has its own specific investment attractiveness. Metallurgical and oil and gas companies enjoy the highest attractiveness while large energy companies, on the contrary, demonstrate an increase in the cost of equity. This situation is evidently caused by the general trends in the development of each of these industries in the last fifteen years. As a rule, export-oriented industries have a higher investment attractiveness and, according to the comparative analysis of beta-coefficients, are less exposed to risk. Thus, for metallurgical and oil and gas enterprises, industry-specific characteristics are crucial for a reduction in the cost of equity capital. In certain cases, these effects prevail over the impact from CSR information disclosure.

The above-described trends can be caused by two groups of factors. Firstly, these are the factors related to information asymmetry and described in our theoretical overview. Secondly, these trends are undoubtedly associated with the phases in the cycles of economic development of Russian industrial enterprises. The given period coincided with the phase when companies were actively exploring foreign markets and practices of CSR reporting were gradually developing. It might explain the results of our content-analysis – the stable correlation between the increasing dynamics of disclosure of certain CSR indicators and the cost of equity capital. However, after the financial recession of 2008, social reporting became much less relevant for investment attractiveness.

Our research results can help the management of companies trying to solve problems in the sphere of information disclosure. The proposed model has shown that the application of CSR principles is an integral part of development that must be implemented to increase the company's investment attractiveness in the long run. CSR is one of the key means of corporate reputation as a major component of companies' investment attractiveness. Disclosure of CSR information can have an indirect effect on decisions of investors and other third parties because it reduces information asymmetry between the sides involved in decision-making. Disclosure of information spares investors the effort and expense of having to monitor internal business processes in the company and to analyze the non-diversifiable risks of its social and economic development.

Limitations of this study and future research prospects

This study is unique for the Russian practice of CSR research because it relies on econometric analysis of the impact that CSR information disclosure has on investment attractiveness in a longitudinal sample of large Russian industrial companies. Nevertheless, the applied econometric model is comparatively simple, which results in a number of limitations since it does not take into

account the depth of information disclosure, the implications of delayed disclosure (over a year) and so on. Furthermore, there are alternatives to the applied CAPM-models, which can be considered by further studies.

Another crucial question left for further exploration is the impact of specific areas of CSR information disclosure on investment attractiveness of business entities and the temporal aspects that determine the speed of information dissemination. These factors can influence investors' decision-making directly or indirectly. Some studies (see, for example, [25]) show that certain types of disclosure can create negative signals for investors. For further research of the impact of social reporting, it is recommended to use more complex models that would take into account direct and indirect results of disclosure impact on the cost of the equity capital.

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