CORPORATE TRANSITION TO SUSTAINABLE LOW-CARBON DEVELOPMENT AS A FACTOR OF MARKET BENCHMARKS’ DYNAMICS

Zokhid Rakhimov1, Nadezhda Lvova2, Svetlana Saksonova3, Neli Abramishvili4

1PhD, Saint Petersburg, Latvia, +79771182152, zakhid93@gmail.com
2Saint Petersburg State University, Saint Petersburg, Russia, 7/9 Universitetskaya Emb, +78123636776, n.lvova@spbu.ru
3University of Latvia, Riga, Latvia, 5, Aspazijas blvd, +37129653287, svetlana.saksonova@lu.lv
4National Research University Higher School of Economics, Saint Petersburg, Russia, 16 Soyuza Pechatnikov St., +78126446212, nabramishvili@hse.ru

Keywords: sustainable development, low-carbon development, carbon market, market benchmarks.

The corporations transition to sustainable low-carbon development under the auspices of the UN global initiatives has an increasingly significant impact on all areas of modern society, including financial markets. The dynamics of market indicators begins to be influenced by new determinants, which defined the research purpose – to assess the impact of factors reflecting the corporate transition to sustainable low-carbon development on market benchmarks. Therefore, the following tasks were set and solved:

• to systematize the research on the impact of the corporate transition to sustainable low-carbon development on their investment characteristics;
• to formulate hypotheses about the factors’ impact on the corporate transition to sustainable low-carbon development on market benchmarks;
• to test these hypotheses;
• to propose recommendations for the development of methodological approaches to investment analysis and regulation of financial markets.

Having systematized the research on the impact of the corporate transition to sustainable low-carbon development on their investment characteristics, the authors concluded that the problem of the impact of new factors on the performance of financial markets is considered in the scientific literature from different points of view. A significant number of studies confirm the influence of environmental, social and governance factors (ESG factors) on market capitalization, risks, and financial profile of a business.

The revealed connection of market indicators of individual companies with the results of the introduction of new cost and investment management practices should mean that market benchmarks begin to depend on new factors. Verification of this assumption deserves independent attention but is accepted by default in existing studies. Given this gap, we formulated and tested the main hypotheses which can be formulated as follows:

$H_0$: factors associated with the corporate transition to sustainable low-carbon development have a significant influence on a market benchmark;

$H_1$: these factors do not have a significant influence on a market benchmark.

The main hypotheses were decomposed into four pairs of sub-hypotheses: a) the indices of the largest emerging market in Eastern Europe (Moscow Exchange IMOEX and RTSI) were alternately used as market benchmarks; b) corresponding hypotheses were tested in two stages: before the adoption of the UN sustainable development goals and the Paris climate agreement (from 2012 to 2015) and after the introduction of these global initiatives (from 2016 to 2021).

The predictors were divided into three groups: sustainable, high carbon and risk factors. The group of sustainable factors included the Russian indices Responsibility and Openness (MRRT) and Sustainable Development Vector (MRSV), the global ESG index FTSE4Good GB and the similar European index FTSE4Good EB as well as futures contracts for EU carbon units.
and natural gas. The second group of factors was formed by futures indices for oil, coal, and aluminum. The rate of return on ten-year federal loan bonds was used as a risk factor.

To test the hypotheses, methods of correlation and regression analysis were used, which made it possible to develop four multi-factor models of market benchmarks (for IMOEX and RTSI for two analyzed periods), confirming the hypotheses put forward. Several factors associated with the transition to a sustainable low-carbon development (MRRT, FTSE4Good EB, EU ETS and natural gas futures contracts) were found to have a significant impact on market benchmarks. At the same time, in the period after 2015, the relative importance of these factors increases.

The research contributes to a methodology for assessing the impact of a corporate transition to sustainable low-carbon development of financial markets. It also confirms the independent significance of testing market benchmarks depending on the relevant factors, the choice of which has confirmed its relevance for the Russian market and can be tested in other conditions. The study results have the practical importance for investment analysis and can also be used to regulate financial markets.

Acknowledgements

This work was supported by Saint-Petersburg State University research grant (pr. No GZ_MDF_2023-1, pure ID 101662710).