Assessment of Sustainable Development of Oil Companies

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Abstract

Recently, following the principles of sustainable development has become a trend for the global financial and investment community. More and more companies integrate ESG principles (environmental, social, and governance) in their investment strategies, publishing sustainable development reports, and integrated reporting. Unfortunately, this is not yet a top development priority for Russian companies. The incentive for them is the requirements of foreign investors and partners. Thus, introducing responsible investment principles and adhering to sustainable development goals are relevant for such major players as oil companies. In this research, to assess the importance of sustainability factors for investors, we analyzed the best-known stock indices and compared them with similar industry indices, considering the ESG factor. We proposed a sustainable development assessment for oil companies based on examining the company's integrated reporting, sustainability reporting, and use of the key performance indicators (KPI).

Keywords

Sustainable development • ESG investment • Key performance indicators • Integrated reporting • Responsible business

JEL Classification

M410 • Q010

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1 Introduction

The COVID-19 pandemic has seriously affected the world economy, leading to a decline in economic activity and a reduction in industrial production, resulting in a major collapse in demand and oil prices. Members of the Organization of Petroleum Exporting Countries (OPEC) and its partners reached a compromise on the issue to reduce oil production. Competition between hydrocarbon exporters on the global market has intensified.

The energy transition may accelerate after the COVID-19 crisis. The energy transition refers to the phasing of fossil fuels and nuclear energy in favor of renewable energy sources, with a concomitant increase in energy efficiency.

The world's population is increasing, but about a billion people still lack access to electricity. The planet needs more energy. However, in the face of global warming, energy sources must become low-carbon or carbon neutral.

On March 26, 2020, the Club of Rome sent an open letter to the world leaders stating that the current crisis represents an unprecedented opportunity to move away from unmitigated growth at all costs and from the old fossil fuel economy.

On March 31, 2020, the UN published a report "shared responsibility, global solidarity: responding to the socio-economic impacts of COVID-19". The report emphasizes that the pandemic does not COVID-19 replace the need to implement the 2030 Agenda for Sustainable Development and the Paris Climate Agreement. The document also states that governments should not respond to the COVID-19 crisis by making decisions that exacerbate global challenges such as pollution and the climate crisis.

According to the UN, sustainable development is a development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

Achieving sustainable development requires joint efforts of governments, society, and businesses. Reputable companies are

A. V. Bogoviz and E. G. Popkova (eds.), *Digital Technologies and Institutions for Sustainable Development*, Advances in Science, Technology & Innovation, https://doi.org/10.1007/978-3-031-04289-8_37

now incorporating sustainability principles into their strategies; they also publish sustainability reports. This is especially true for major business players such as oil companies.

Nowadays, the responsible business is taken seriously worldwide, and the success of a company is measured not only by the amount of profit but also by the methods of its obtaining. The long-term profitability of the company must be combined with social justice and environmental protection. This reference point must be fully acknowledged by investors, consumers, and other stakeholders [3].

A company's long-term financial success goes hand in hand with its record on social responsibility, environmental stewardship, and corporate ethics.

Environmental, social, and governance (ESG) factors refer to the three central factors in measuring the sustainability and societal impact of an investment in a company or business.

For business, ESG responsibilities are no longer optional; they are a condition for success. While the great majority of companies have yet to commit to this trajectory, there is a strong upward growth curve in actively engaged companies, with the vanguard taking serious action in all key markets. There is a growing sense that corporate sustainability has drawn a line in the sand, and it is best for businesses to get on the right side [4].

2 Materials and Method

For our research, we used the world's largest global resource, S&P Dow Jones Indices, for data and research index-based concepts. The company's best-known indices are the S&P 500 and the Dow Jones. We analyzed the main stock indices (Table 1) and compared them with similar industry indices, considering the ESG factor. We also used the trend line to forecast the development in the energy sector. We proposed a sustainable development assessment for oil companies based on the study of the company's integrated reporting, sustainability reporting, and use of the KPI (Table 2).

Table 1 S&P Dow Jones Indices

Index	Ticker	The index launch date	Definition
The S&P 500	SPX	Mar 04, 1957	The S&P 500 is widely regarded as the best single gage of large-cap US equities. The index includes 500 leading companies and covers approximately 80% of available market capitalization
The S&P 500 ESG Index	SPXESUP	Jan 28, 2019	The S&P 500 ESG Index is a broad-based, market-cap-weighted index designed to measure the performance of securities meeting sustainability criteria while maintaining similar overall industry group weights as the S&P 500
Dow Jones US Index	DJUS	Feb 14, 2000	The Dow Jones US Index aims to provide 95% market capitalization coverage of US-traded stocks
Dow Jones Sustainability US Composite Index	AASGI	Sep 23, 2005	The Dow Jones Sustainability US Composite Index is designed for investors seeking an index tracking US security that applies a sustainability best-in-class selection process. The index tracks the performance of the top 20% of the largest 600 US companies in the Dow Jones Sustainability North America Index, selected by the SAM's total sustainability score
S&P 500 Energy	SPN	Jun 28, 1996	The S&P 500 Energy comprises those companies included in the S&P 500 that are classified as members of the Global Industry Classification Standard energy sector
S&P Global Clean Energy Index	SPGTCED	Feb 22, 2007	The S&P Global Clean Energy Index provides liquid and tradable exposure to 30 companies from around the world that are involved in clean energy-related businesses. The index comprises a diversified mix of clean energy production and clean energy equipment and technology companies

Source: Compiled by the authors based on S&P Dow Jones Indices LLC, 2020 [7]

Table 2 KPIs for sustainable development of oil companies

KPI	Formula	Limitations
Economic		
The debt-to-equity (D/E)	Debt/equity = Total liabilities/total shareholders' equity	>2
Return on sales (ROS)	ROS = Operating profit/net sales	>0 compared with other companies operating in the same industry
Return on equity (ROE)	Return on equity = Net income/average shareholders' equity	>15
Price-to-book (P/B ratio)	P/B ratio = Market price per share/book value per share	<1.0 a good P/B for value investors
Current ratio	Current ratio = Current assets/current liabilities	>1.5
Social		
Permanent employee turn overrates	Percentage of replacing an employee with a new employee	<5
Lost time injury frequency (LTIF)	LTIF is the number of lost time injuries occurring in a workplace/total hours worked by all employees * 1 million	0
Fatal accident rate (FAR)	FAR is calculated as the number of fatalities/total number of hours worked by all employees * 100 million	0
Women in leadership positions	Proportion of women in leadership positions (percentage)	50
Average salary	Average monthly salary	Positive dynamics
Training hours per employee (h)	The number of training hours per employee	Positive dynamics
Environment		
APG utilized	Associated petroleum gas utilization rate	≥ 95
Waste recovered	Waste utilization rate	≥ 99
Renewable energy production	Total production	Positive dynamics
Oil spills (thousand tons)	Volume of oil spills	0

Source Compiled by the authors based on [8]

3 Results and Discussion

Sustainable investing—the integration of environmental, social, and governance (ESG) factors into analysis and decision-making—has seen a remarkable rise over the past couple of years.

So far, the outbreak of the COVID-19 virus has not stopped the growth of ESG investing, which has seen a steady increase in inflows and better-than-average returns since the start of the COVID-19 pandemic [5].

To assess the importance of sustainable development factors, we analyzed the main stock indices and compared them with similar industry indices, considering the ESG factor. Indexes for analysis are presented in Table 1.

Figure 1 shows that the oldest S&P 500 index slightly loses to its analog, the S&P 500 ESG, which considers the factors of sustainable development.

The comparison was carried out on a one-year basis because the S&P 500 ESG was launched in 2019.

The Dow Jones Sustainability US Composite Index slightly outperformed the Dow Jones US Index for five years. Over the past year, the index with the ESG factor showed even greater potential (Fig. 2).

Comparing the two energy sector indices shows that the traditional energy index has outperformed the clean energy index for four years. Nevertheless, the situation has changed oppositely over the past year (Fig. 3).

We have added a trend line using the linear function (1)

$$y = ax + b, \tag{1}$$

where

x, y the coordinates of any point on the line;
a the slope of the line.
b the *y*-intercept (where the line crosses the *y*-axis).

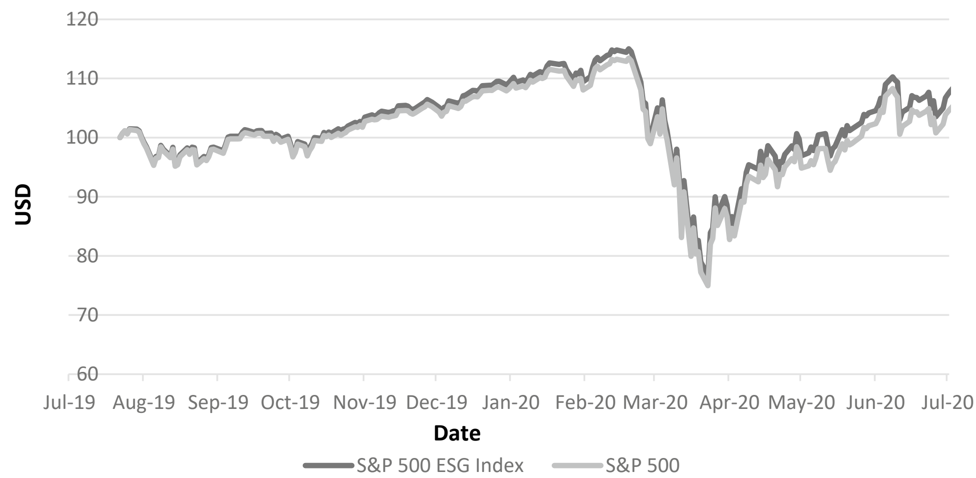

Fig. 1 S&P 500 and S&P 500 ESG graph view. *Source:* Compiled by the authors based on S&P Dow Jones Indices LLC, 2020 [7]

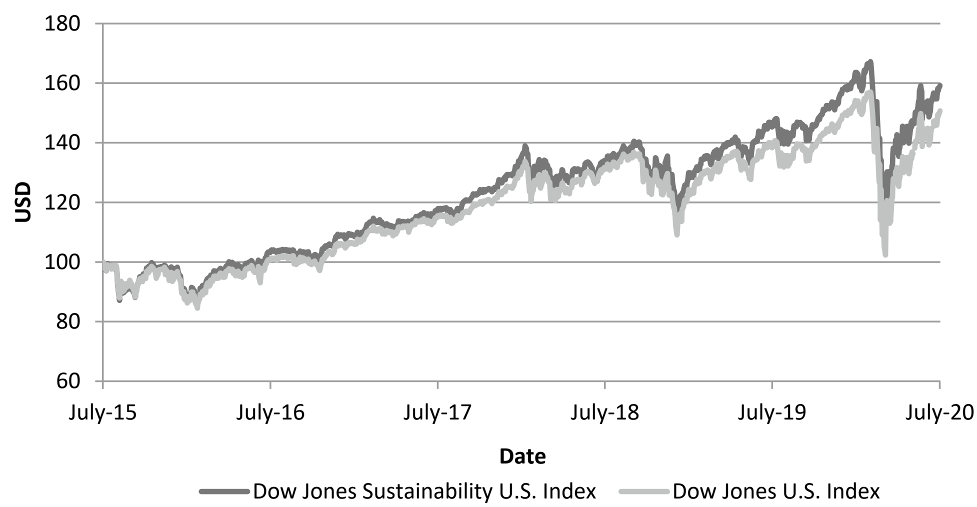

Fig. 2 Dow Jones sustainability US the composite index and Dow Jones U.S. index graph view. *Source* Compiled by the authors based on S&P Dow Jones Indices LLC, 2020 [7]

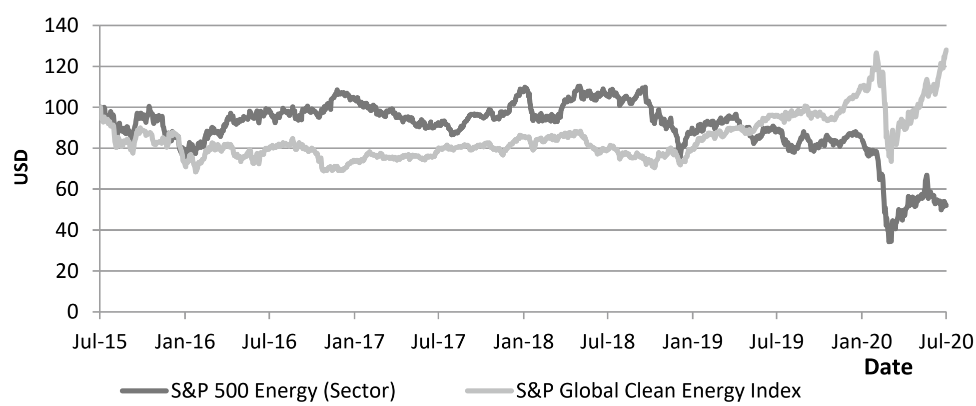

Fig. 3 S&P 500 energy (sector) and S&P global clean energy index graph view. *Source:* Compiled by the authors based on S&P Dow Jones Indices LLC, 2020 [7]

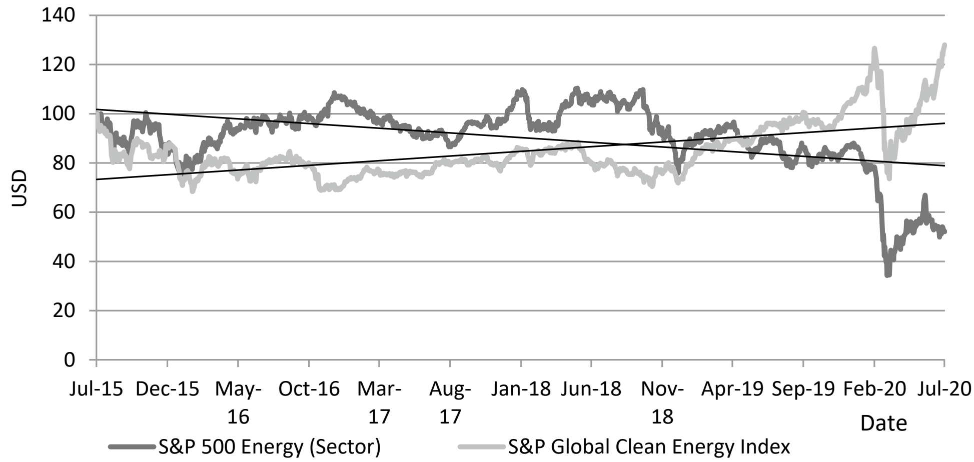

Fig. 4 S&P 500 energy (sector) and S&P global clean energy index with trend line graph view. *Source:* Compiled by the authors based on S&P Dow Jones Indices LLC, 2020 [7]

By extending the trend line in the chart beyond the real data, we can predict future values. It can be concluded that investor interest in clean energy will increase and decline toward traditional energy (Fig. 4).

Nowadays, when making an investment decision, it is not enough to study financial indicators; it is also necessary to assess the sustainable development of a company.

The main priorities of sustainable development for oil companies are safe production, reducing the load on the environment, developing personnel, promoting regional development, and considering the interests of stakeholders. These priorities and their respective goals are consistent with global trends and sustainable development goals.

We proposed a sustainable development assessment for oil companies. The first step is to analyze the company's sustainability and integrated reporting.

The growing popularity of integrated reporting is becoming the trend of best practices among successful companies. Transparent and clear reporting allows attracting additional investment, conducting better business management, and focusing on a sustainable future. Control of the company's sustainable development is a complex and important management task that is possible to handle through ensuring economic security. For this purpose, companies are encouraged to track key performance indicators in the current period and give accurate forecasts [1].

This reporting shows the interdependence of social, economic, and environmental factors. The non-financial report also has a moral part—the need to focus on charity and help the poor, sick, and homeless. Using Sustainability Report, businesses demonstrate their care about the environment, social orientation, and economic policy [6].

Because management is free to define the indicators of performance measuring, companies face the problem of comparability of information provided.

CEOs are confident that integrated reports serve to achieve great goals. A sustainability report allows companies to create the image of an attractive employer because it contains information about the system of management and social responsibility to employees [2].

This report is a good management tool for public communication; it provides an opportunity to talk with the company's stakeholders. Additionally, an integrated report helps management to focus on the main activities and purposes.

The main priorities for sustainable development for oil companies are safe production, reducing the load on the environment, developing personnel, promoting regional development, and focusing on the interests of stakeholders. These priorities and their respective goals align with global trends and sustainable development goals.

The second step is to look at the ESG rating of the company. If the company is not included in the rating, one can proceed to the third step. According to the RAEX agency, in 2019, the first places in the first ESG rating in Russia were taken by Lukoil, Tatneft, and Gazprom. The ESG rating is based on the principle of assessing the optimal set of special indicators reflecting the company's impact on the environmental and social environment and the company's exposure to social and managerial risks. The ESG rating is based on universal indicators for companies of all sectors. Therefore, in the third stage, we proposed a sustainable development assessment for oil companies based on the KPIs. The most significant indicators in each area (economic, environmental, and social) are presented in Table 2.

Sustainable development assessment for oil companies considers specific industry indicators and participation in renewable energy. Table 2 can be used to assess the changes in the company over the past years and compare the company's sustainability to companies in the same area.

After analyzing stock indices, we concluded that further successful development of the oil business is impossible without introducing sustainable development factors in the company's strategy. Oil companies need to develop renewable energy sources to diversify risks and be in trend. Therefore, we have proposed a sustainable development assessment for oil companies based on KPIs.

4 Conclusion

The COVID-19 crisis could lead to a rethinking of the development process in many countries and accelerate the transition to sustainable development, the integral elements of which are energy efficiency and renewable energy. According to recently published documents from various international organizations, energy transition and development of renewable energy sources should be a priority of anti-crisis programs that countries will begin to implement in the near future to overcome the economic crisis caused by the COVID-19 pandemic. Therefore, it is strategically important for oil companies to follow sustainable development goals and implement a sustainable development assessment to measure success in achieving these goals.

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