



ESG Risks and Opportunities in the Post-COVID Period

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INTRODUCTION

The 2019 World Economic Forum's Global Risk Report featured pandemics among a wide range of collective challenges (World Economic Forum, 2019). In 2020, the COVID-19 pandemic triggered an economic disruption of an unprecedented magnitude and speed. As COVID-19 has spread globally, serious health concerns, compounded by economic crises, spread around the whole planet. Unlike in previous financial crises, the origins of the current crisis lay outside of the financial sector and affected the resilience of all global stock markets and economies. Responses to the pandemic have caused tensions that threaten global stability.

Simultaneously, it has been a great disruption for corporate governance and business processes across the world, driven by the need to

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completely reorganize business models, value chains, and communication with customers and employees in a short period of time. After the spread of COVID-19 in early 2020, boards of directors and management faced a multitude of challenges. Moreover, the pandemic accelerated already emerging ESG trends.

Now, more than a year after the World Health Organization declared the outbreak of the global pandemic on March 11, 2020, it is clear that the long-term consequences for financial markets are hard to predict.

The pandemic has accelerated the ESG agenda for economies and societies. Those companies that acknowledge ESG factors in their businesses have demonstrated better performance and higher profits in comparison with those which fail to do so (J. P. Morgan Asset Management, 2020). Moreover, elevated attention to social aspects of ESG is one of the key results of COVID-19. The pandemic has revealed its importance for business activities and put them in one line with other post-COVID trends such as digitalization and e-commerce, localization, and social distancing behavior (Yankovskaya et al., 2021).

A legally binding international treaty on climate change was adopted by 196 parties in Paris on December 12, 2015. The so-called “Paris Agreement” aims to substantially reduce global greenhouse gas emissions to limit global warming compared to pre-industrial levels (United Nations, 2015). Since its adoption, considerable steps toward achieving Sustainable Development Goals were taken by both governments and investors. The UK Stewardship Code 2020 also promotes sustainable development, and states in its 7th Principle: “Signatories systematically integrate stewardship and investment, including material environmental, social and governance issues, and climate change, to fulfill their responsibilities” (Financial Reporting Council, 2020).

According to the 2020 Global Sustainable Investing Survey, 75% of respondents worldwide are currently considering integrating ESG into their investment decisions. At the same time, 53% of global respondents (425 investors in 27 countries) highlighted insufficient quality or availability of ESG data and analytics as a major barrier to wider adoption of sustainable investment goals (Blackrock, 2020).

In this paper, the authors investigate, analyze, and discuss the future of the UN Sustainable Development Goals (hereafter Sustainable Development Goals) which are implemented via the instrument of Environment, Social and Governance (hereafter ESG) principles in Europe, the United States, and Russia.

The main goal was to predict the post-COVID trends and provide the companies and the boards with recommendations on how to seize ESG opportunities for the profit of the shareholders and the planet.

METHODOLOGY

The research is based on an analysis of scientific and practical sources in the fields of ESG and corporate governance. The authors apply historical analysis, empirical and comparative analysis, expert assessments, synthesis, deduction, and induction, through which the main trends in the application of ESG-related requirements which affect the implementation of business strategies of leading companies could be identified. The analysis also covered the practical tools of integration of ESG factors into investment decisions by the application of various ESG reporting standards¹ and sustainability ratings.

The research data was obtained from open sources on the Internet, official websites of international organizations (the UN, WEF SEC, etc.), Russian, European, and U.S. regulation authorities, international companies (Blackrock, Ernst & Young, J. P. Morgan, etc.), and other institutions and organizations relevant to ESG regulation framework (rating agencies, reporting organizations). The authors have analyzed more than 30 theoretical research papers and empirical studies about ESG factors in order to arrive at their conclusion on ESG trends.

The importance of ESG factors for institutional investors from different countries was constantly increasing in the last decade. Investors' financial goals became aligned with internationally recognized Sustainable Development Goals. In the United States, sustainable investing continues to expand and grew from \$12.0 trillion at the start of 2018 to \$17.1 trillion at the start of 2020 (a 42% increase), representing 33% of the total US assets under professional management (US SIF, 2020). However, while corresponding to high growth rates, this area also has become one of the debated investment strategies over the recent decades, due to the fact that sustainable investing is traditionally regarded as costly. In their study, Fabio Alessandrini and Eric Jondeau (2021) conclude that this is no longer a matter of fact, as the ESG portfolio's Sharpe ratio—a measure of investment portfolio effectiveness—was above that of the benchmark

¹ Under ESG reporting is implied sustainability reporting, corporate social responsibility reporting, and ESG risks reporting and purpose led reporting (water, biodiversity, etc.).

in the United States, in Europe, and worldwide, from January 2007 to December 2018. Another study proved that inclusion of ESG factors into investment decisions would have been the right strategy during the recent pandemic, as the performance of the fund constructed considering the ESG Risk Rating was better than corresponding for S&P500 index (Samyukth, 2021).

RESULTS

The record inflows into European sustainable funds in the second quarter of 2020 were driven by growing investors' interest in ESG issues (Morningstar, 2020). The increased importance of ESG is supported by several factors: transparency of ESG-related information, stakeholder activism, societal expectations, and investor emphasis on ESG (BCG, 2020). Considering not every ESG factor will be important to all businesses and sectors, it is essential for both companies and investors to be able to identify and manage those factors that may affect the business.

The 16th edition of the World Economic Forum's Global Risks Report supports a shift toward greener economies and states that climate change continues to be a long-term risk for the world (World Economic Forum, 2021a). The ESG risks represent a variety of interdependent issues and threats to Sustainable Development Goals which include such global challenges as poverty, gender inequality, climate change, environmental degradation, health, and well-being (Table 11.1).

Risk interconnectivity is high, and the occurrence of any of them may lead to devastating global economic disruption, as was clearly demonstrated in 2020. Another example of the correlation between ESG risks and business operations was the fuel spill from a storage tank owned by the biggest Russian mining company PJSC "MMC 'Norilsk Nickel'" into rivers and lakes in Russia's Arctic north in May 2020. The damages paid constituted the largest environmental fine to have ever been imposed in Russia.² As a result of the oil spill, the Federal Service for Environmental, Technological, and Nuclear Supervision of Russia plans to introduce changes to the current legislation in order to prevent the occurrence of similar accidents.

² PJSC "MMC "Norilsk Nickel" <https://www.nornickel.com/news-and-media/press-releases-and-news/nornickel-pays-full-damages-in-connection-with-fuel-spill-at-norilsk-s-combined-heat/type=releases>.

Table 11.1 ESG risks by factor

<i>Environment Factor</i>	<i>Social Factor</i>	<i>Governance Factor</i>
<ul style="list-style-type: none"> • Climate crisis • Extreme weather conditions • Natural disasters • Human-made environment accidents • Biodiversity loss • Carbon footprint increase • Air and water pollution • Toxic waste • Soil exhaustion • Natural resources depletion 	<ul style="list-style-type: none"> • Global pandemics and infection diseases • Starvation • Water crises • Workers health and safety hazards • Local and ethnic population loss • Human rights violation • Labor rights violation • Child labor • Migration • Small and middle business bankruptcy • Social instability • Discrimination, harassment, and bullying 	<ul style="list-style-type: none"> • Corruption • Money-laundering • Fraud • Incompliance with laws and regulations • Corporate governance failure • Strategy inadequacy • Lack of board members and management diversity

Source Created by the authors on the basis of UN Sustainable Development Goals

In the digital age, credit ratings alone are no longer sufficient to simultaneously serve interests of all stakeholders; it is not only financial data that is now available for investment decision process, but it is also necessary to evaluate the readiness of the company to abide by Sustainable Development Goals. PricewaterhouseCoopers' research suggests that traditional financial metrics are no longer able to fully demonstrate the resilience of a company for a wide range of stakeholders. In this regard, companies have begun to measure their achievements in the fields of the environment (carbon emissions, energy efficient technologies, etc.), society (percent of employee digital education, worker safety, employee satisfaction, etc.), and governance (number of female and minority directors, board oversight of climate change-related risks, etc.). The incompliance or lack of ESG reporting transparency may undermine long-term value and capitalization of the company.

Bloomberg Financial Services³ recommend investors to apply a variety of non-financial criteria and metrics before taking investment decisions, such as:

- Board composition scores, which rank the relative performance of companies across industries on measures of diversity, refreshment, director roles, and independence;
- Carbon footprint, which assesses how prepared a company is for a low-carbon and renewable energy transition relative to its peers;
- ESG news coverage, which provides an analysis of companies' environmental and social behavior;
- ESG disclosure scores, which rate companies on their level of ESG disclosure.

At the same time, each company needs to independently determine the most effective ways to measure and report on progress, including indicators that demonstrate the company's commitment to mitigating ESG risks and seizing opportunities.

In response to increasing investor demand for non-financial information from companies, a number of sustainability accounting frameworks have evolved to improve the standardized disclosure of ESG information (Bose, 2020). In short, ESG reporting is disclosure of material ESG risks and opportunities, from both a qualitative and quantitative perspective. The main trends in ESG reporting include sustainable reporting expansion and expected regulatory pressure (Blank & Lasdon, 2021). In 2020, 90% of S&P 500 companies issued a sustainability report, which is a considerable increase from just 20% in 2011. The EU climate regulation—which is currently being developed in order to achieve a goal of net zero greenhouse gas emissions by 2050—is expected to come into force soon and reshape the ESG reporting format from voluntary to binding.

Russian carbon legislation, however, is falling behind. The draft of greenhouse gas emission control law elaborated by the Ministry of Economic Development, which is being discussed by the Russian state authorities, includes two key areas: mandatory carbon reporting and

³ Bloomberg. <https://www.bloomberg.com/professional/solution/sustainable-finance/>.

green certificates legislation.⁴ Currently, the pioneer of the green certificates market is PJSC “Sberbank,” which, prior to establishment of formal market regulation, voluntarily signed the agreement with the international non-profit organization I-REC Standard Foundation (I-REC local issuer “Goal Number Seven”) on joining the international energy traceability standard I-REC. Remarkably, the contracts are traded on the decentralized blockchain platform developed by PJSC “Sberbank.”⁵ The platform will unite all participants in the renewable energy market and use smart-contracts to execute deals (Yukhno, 2020; Yukhno & Osipov, 2021).

Companies are already applying a number of non-financial reporting metrics relating to ESG factors attempting to assess ESG risks and opportunities for their businesses in order to be prepared for new challenges and tasks.

The market participants seek to analyze how companies evaluate risks and develop business strategies applying ESG metrics. Providing this information can help improve a company’s reputation, while withholding it could potentially damage shareholders’ value and access to capital. Such information would also point to possible risk areas and factors that could potentially endanger the company’s business. With growing pressure from investors to disclose ESG metrics, companies are incorporating ESG reporting standards. In this regard, while it is not mandatory in many countries, investors and other stakeholders already view it as an instrument for improving the effectiveness of business in the long term. In Russia, the majority of so-called blue chip companies issue sustainable reports in order to attract international investments.

There is a variety of different ESG reporting frameworks and standards with various scoring systems and data frameworks, such as Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Task Force on Climate-Related Financial Disclosures (TCFD), and others. However, companies often express concerns over a lack of guidance as to which disclosure standards to follow. At the same time, investors complain that sustainable reporting information is not always

⁴ <https://sozd.duma.gov.ru/bill/1116605-7/>.

⁵ International REC Standard Foundation, <https://www.irecstandard.org/news/developments-in-the-russian-market-for-i-recs/>.

comparable and does not provide a sufficient level of details and consistency to properly factor ESG considerations into investment decisions (Davies et al., 2020).

Similar to financial reporting standards, which were synchronized at local and global levels, one of the recent global tendencies relates to the alignment and consolidation of ESG reporting requirement. As such, the Trustees of International Financial Reporting Standards (IFRS) plan to establish new reporting standards that address enterprise value, which captures expected value creation for investors in the short, medium, and long term and is interdependent with value creation for society and the environment.⁶

New formats of sustainable reporting emerge every year, including industry-specific ESG risk reporting, e.g., water pollution risk. The first major company to publish a water report in Russia was PJSC “Polyus,” where the company included a set of managerial and technical initiatives to make water intake more efficient.⁷

In order to support investors with their commitment to Sustainable Development Goals, stock exchanges, credit agencies, and other market players traditionally responsible for reliable financial information are developing various ESG ratings (SAM CSA by S&P Global, CDP Index, Sustainalytics by Morningstar, MSCI). The adoption of ESG ratings by companies is constantly rising. The number of firms with MSCI-ESG scores increased from 1,700 in January 2007 to more than 8,500 in October 2020.⁸ The main difference between ESG ratings and credit ratings is their divergence or variance from one rating organization to another for one and the same company. While credit ratings for a particular issuer are generally similar, the ESG ratings may vary considerably (Dimson et al., 2020).

Considering ESG principles helps a company identify and mitigate material risks. Despite the pandemic, assets under management in funds that abide by ESG principles have surpassed \$1 trillion in 2020.⁹ The

⁶ IFRS. <https://www.ifrs.org/news-and-events/news/2021/03/trustees-announce-strategic-direction-based-on-feedback-to-sustainability-reporting-consultation/>.

⁷ PJSC Polyus. <https://polyus.com/en/media/press-releases/polyus-publishes-its-first-water-report/>.

⁸ MSCI. <https://www.msci.com/>.

⁹ UBS Group AG. <https://www.ubs.com/global/en/wealth-management/chief-investment-office/market-insights/house-view/daily/2020/latest-10082020.html>.

analysis of 11,000 mutual funds by Morgan Stanley Institute for Sustainable Investing between 2004 and 2018 reveals that sustainable funds have lower volatility and a 20% smaller downside deviation compared to the traditional funds. In 2019, sustainable strategies outperformed traditional funds by 2.8 percentage points. During the pandemic, in the first half of 2020, sustainable strategies declined by 3.9 percentage points less than traditional strategies (J. P. Morgan Asset Management, 2021).

Commitment to ESG principles encourages companies to support ESG solutions by issuing sustainable (green, social, sustainability, sustainability-linked) bonds. Bond markets have responded to the financing needs of issuers for COVID-19 response and recovery via social bonds that raise funds for new or existing projects targeting positive social outcomes (Pimco, 2020). For example, Alphabet Inc., the shareholder of Google Inc., issued \$5.75 billion in sustainability bonds, the largest sustainability or green bond by any company in history, to support environmental and social initiatives.¹⁰

During the current pandemic, digital technologies supported the continuity of business processes and contributed to the sustainability of organizations. The digital transformation strategy of a company has become an important tool for introducing new technologies (artificial intelligence, big data analysis, virtual reality, Internet of Things, robotics, etc.) in order to reduce the negative impact on the environment and stimulate transition to more environmentally friendly methods of work.

The Sustainable Development Goals in the post-COVID period provide an opportunity for companies to accelerate the adoption of digital technologies in their operations to build resilience. As the global economy moves further into the digital era, there are a number of existing and emerging technologies that companies can utilize to improve their ESG data reliability and quality and apply advanced audit techniques. Examples include software enablement and advanced analytics, virtual reality, drones, and robotics (Ernst & Young, 2020b).

The U.S. Securities and Exchange Commission's Investor Advisory Committee recommends that investors receive reliable, material ESG information upon which to base investment and voting decisions (SEC, 2020b). Consequently, incorporating ESG factors into the company's digital business strategy will accelerate the transition to ESG reporting,

¹⁰ Alphabet Inc. <https://blog.google/alphabet/alphabet-issues-sustainability-bonds-support-environmental-and-social-initiatives/>.

especially during the Fourth Industrial Revolution (Konina, 2021; Yukhno, 2021).

DISCUSSIONS

In his 2021 letter to CEOs, BlackRock's Chairman Larry Fink urges companies to implement business model compatible with a net zero economy into long-term strategy to be reviewed by the board. Even though there are still doubts and opponents to the practicality of ESG factors within the business and academic community (Cornell & Shapiro, 2020), in January 2021 the World Economic Forum (WEF) also announced that over 60 of the world's largest companies have committed to providing disclosure against core ESG metrics developed by the WEF and its International Business Council (WEF, 2021b).

One of the main questions investors committed to principles of responsible investment should ask themselves is whether they should abstain from cooperation with those companies that do not adhere to the sustainability principles in their activities. These questions are actively discussed throughout the financial industry. "We expect this will be a hotly debated issue in 2021," say State Street Global Advisers, which has \$3.2tn of assets under management, in an ESG outlook report for the new year (Temple-West, 2021). Thus, for public companies which have not yet implemented ESG reporting, the aforementioned risk also becomes a key financial risk. This can be evidenced by a recent example when the PIMCO fund refused to purchase social bonds of JSC "Russian Railways," since in the structure of the cargo transportation, carbon-containing cargoes account for more than 50% in the structure of cargo transportation (Belikov, 2021).

In order to resolve ESG reporting problems and comply with changing rules, organizations interested in long-term investments are actively reviewing their business strategies, processes, and reporting. A sound ESG strategy can create intrinsic value by properly managing key risks and developing opportunities. Furthermore, if a company is transparent about how it addresses stakeholder interests in relation to Sustainable Development Goals, ESG ratings and shareholder value can rise over time.

Recognizing the scale and multifaceted nature of ESG factors, which creates both risks and opportunities to organizations, the largest U.S. public pension fund CalPERS identifies four channels of ESG strategy:

- Engagement—to ensure that the companies invested in are reducing global warming emissions;
- Advocacy—to support policies and regulations that will facilitate the energy transition;
- Integration—to make investment decisions based on consideration of climate change risks and opportunities;
- Partnership—to interact with other stakeholders (CalPERS, 2020).

Executing such a strategy would require constant coordination among stakeholders (U.S. Securities and Exchange Commission, 2020a).

A key role in the implementation of ESG policy should be played by the board of directors of a company. In 2020, just 45% of directors said that ESG factors are regularly a part of the board’s agenda, up from just 34% in 2019 (PricewaterhouseCoopers, 2020). Because ESG strategy should align with business strategy and focus on material risks, the board of directors needs to understand how ESG risks are mitigated. The board needs to assign detailed oversight to a specific committee in order to ensure that the ESG strategy is launched smoothly. Ultimately, ESG factors will be relevant to all committees. As such, in 2020, the biggest Russian bank PJSC “Sberbank” formed the ESG Committee, which developed and presented the ESG transition strategy until 2023.¹¹

In order to integrate ESG Strategy into their business strategy, the board is advised to consider the following recommendations:

1. The board should ensure the management has established control framework around measuring and monitoring a company’s progress against milestones and goals set by ESG strategy;
2. The board should review how ESG Risks are identified, prioritized, and included in Enterprise Risk Model by the management;
3. The board should decide on the allocation of the oversight of ESG risks to a special purpose board committee or leave it within general remit considering the capacity, interest, and competence of board members;
4. The board should understand how ESG factors impact capital allocation decisions;

¹¹ PJSC Sberbank. <https://press.sber.ru/publications/sber-predstavil-svoiu-esg-strategiiu-na-sessii-moskovskoi-birzhi>.

5. The board should consider if ESG reporting audits are required in order to ensure the quality and reliability of ESG data.

Key steps in streamlining ESG strategy implementation may include:

- Reviewing the board composition (gender diversification, stakeholders representation, independent directors, inclusion of ESG factors);
- Increasing disclosure of environment and social factors;
- International ESG regulation monitoring and implementation;
- Reviewing the communication strategy of ESG factors implementation to the market (Ernst & Young, [2020a](#)).

Thus, the board's mission is to confirm the alignment of the company's ESG strategy with the business strategy and corresponding international recommendations.

CONCLUSIONS

One of the key consequences of the current pandemic on ESG is the acceleration of ESG trends driven by investors around the globe and by companies' appetite for incorporation of ESG into their business strategies. The following ESG trends are likely to emerge or become more evident in 2021:

Data quality and quantity improvement. In response to demand and regulatory drivers, the quality and quantity of ESG data will continue improving, including big data collection and analysis, ESG data auditing, and remote access to ESG data.

Growing Role of Social Aspects. Due to the consequences of the COVID-19 pandemic, the number of people globally living in extreme poverty (less than \$1.90 a day) will increase from 115 to 150 m people in 2021 (World Bank, [2020](#)), bringing such social factors on the agenda. This will intensify the measures the governments and companies should take in order to fight global poverty and starvation.

Alignment of Different ESG Reporting Standards. As the importance of ESG and its recognition by business and investment community grows, the movement toward the alignment of different ESG reporting standards will follow.

Alignment of Different ESG Ratings. ESG ratings help investors to identify the most efficient companies in terms of their adherence to Sustainable Development Goals. As with ESG reporting standards, the consolidation and alignment of ESG ratings will occur.

Board's increased attention to Sustainability. Special purpose board committees will be established more often in order to ensure the corporate strategy and risk management consider also ESG factors.

Environmental legislation tightening. The governments will further tighten their environmental legislation to support Sustainable Development Goals and prevent the climate crisis.

Increasingly, leading companies view ESG factors as an essential part of their business strategy. Coupled with evolving demands from investors and other stakeholders, new ESG regulations impact companies' ability to raise capital. The change of corporate paradigm requires investors to understand how companies approach ESG factors in their business model and strategy in the long-term, not just how they respond and react to the current challenges in the moment. Understanding the role of ESG in a company's business model and its integration with risk management and investment framework would bring additional value to shareholders.

REFERENCES

- Alessandrini, F., & Jondeau, E. (2021). Optimal strategies for ESG portfolios. *The Journal of Portfolio Management*. <https://doi.org/10.3905/jpm.2021.1.241>.
- Belikov, I. (2021). *Opinion. Three letters important to investors. How to comply with the modern ESG principle in Russia*. <https://www.vtimes.io/2021/01/28/tri-bukvi-vazhnie-dlya-investorov-a2805>.
- Blackrock. (2020). *2020 global sustainable investing survey*. <https://www.blackrock.com/corporate/literature/publication/blackrock-sustainability-survey.pdf>, p. 8.
- Blank, H., & Lasdon, E. (2021). *The continuing evolution of ESG data and ratings*. <https://doi.org/10.13140/RG.2.2.28235.52009>.
- Bose, S. (2020). *Evolution of ESG Reporting Frameworks*. https://doi.org/10.1007/978-3-030-55613-6_2
- Boston Consulting Group. (2020). *Unlocking tomorrow's ESG opportunities*. <https://www.bcg.com/publications/2020/future-esg-environmental-social-governance-opportunities>.
- CalPERS. (2020). *CalPERS' investment strategy on climate change: First report in response to the Taskforce on Climate-Related Financial Disclosure*

- (TCFD). https://www.calpers.ca.gov/docs/board-agendas/202006/invest/item08c-00_a.pdf.
- Cornell, B., & Shapiro, A. (2020). Corporate stakeholders, corporate valuation and ESG. *European Financial Management*, 27. <https://doi.org/10.1111/efm.12299>
- Davies, P., Dudek, P., & Wyatt, K. (2020). *Recent developments in ESG reporting*. https://doi.org/10.1007/978-3-030-55613-6_11.
- Dimson, E., Marsh, P., & Staunton, M. (2020). Divergent ESG ratings. *The Journal of Portfolio Management*, 47. <https://doi.org/10.3905/jpm.2020.1.175>.
- Ernst & Young LLP. (2020a). *Five ways boards can unlock ESG's strategic value*. https://www.ey.com/en_ca/board-matters/fiveways-boards-can-unlock-esg-s-strategic-value.
- Ernst & Young LLP. (2020b). *How to weave ESG factors into your digital strategy*. https://www.ey.com/en_ca/mining-metals/how-to-weave-esg-factors-into-your-digital-strategy.
- Financial Reporting Council. (2020). "The UK stewardship code 2020. https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814a-d14e156ald87/Stewardship-Code_Final2.pdf.
- J. P. Morgan Asset Management. (2021). *The case for sustainable investing*. <https://www.morganstanley.com/articles/case-for-sustainable-investing>.
- J. P. Morgan Asset Management. (2020). *COVID-19 shows ESG matters more than ever*. <https://am.jpmorgan.com/sg/en/asset-management/per/insights/market-insights/on-the-minds-of-investors/COVID-19-esg-matters/asfa>
- Konina, N. (2021). Introduction: At the dawn of the fourth industrial revolution—Problems and prospects. In N. Konina (Ed.), *Digital strategies in a global market*. Palgrave Macmillan. https://doi.org/10.1007/978-3-030-58267-8_1.
- Morningstar. (2020). *European sustainable fund flows: Q2 2020 in review? ESG fund flows and assets hit new highs as markets recover from the COVID-19 sell-off*. <https://www.morningstar.com/content/dam/marketing/emca/shared/guides/European-Sustainable-Fund-Flows-Q2-2020.pdf>.
- PIMCO. (2020). *Social at the center of ESG*. <https://global.pimco.com/en-gbl/insights/viewpoints/social-at-the-center-of-esg>.
- PricewaterhouseCoopers. (2020). *ESG oversight: The corporate director's guide*. <https://www.pwc.ru/en/publications/collection/esg-guidebook-layout-final.pdf>.
- Samyukth, R. (2021). Impact of ESG rating of companies on the portfolio performance. *Shanlax International Journal of Management*, 8, 34–42. <https://doi.org/10.34293/management.v8i4.3726>.

- SEC. (2020a). *The importance of disclosure—For investors, markets and our fight against COVID-19*. https://www.sec.gov/news/public-statement/statement-clayton-hinman#_edn7.
- SEC. (2020b). *Recommendation from the investor-as-owner subcommittee of the SEC investor advisory committee relating to ESG disclosure*. <https://www.sec.gov/spotlight/investor-advisory-committee-2012/recommendation-of-the-investor-as-owner-subcommittee-on-esg-disclosure.pdf>.
- Temple-West, P. (2021, January). The ESG investor's dilemma: To engage or divest? *Financial Times*. <https://www.ft.com/content/814cbd2c-00db-41b7-91af-28435301a8a2>.
- United Nations. (2015). *Paris agreement*. https://unfccc.int/sites/default/files/english_paris_agreement.pdf.
- US SIF. (2020). *The forum for sustainable and responsible investment. 2020. "2020 trends report highlights"*. https://www.ussif.org/files/Trends/2020_Trends_Highlights_OnePager.pdf.
- World Bank. (2020). *COVID-19 to add as many as 150 million extreme poor by 2021*. <https://www.worldbank.org/en/news/press-release/2020/10/07/COVID-19-to-add-as-many-as-150-million-extreme-poor-by-2021#:~:text=The%20COVID%2D19%20pandemic%20is,severity%20of%20the%20economic%20contraction>.
- World Economic Forum. (2019). *The global risks report 2019: 14th edition*. http://www3.weforum.org/docs/WEF_Global_Risks_Report_2019.pdf.
- World Economic Forum. (2021a). *The global risks report 2021*. http://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf.
- World Economic Forum. (2021b). *Global business leaders support ESG convergence by committing to stakeholder capitalism metrics*. <https://www.weforum.org/press/2021/01/global-business-leaders-support-esg-convergence-by-committing-to-stakeholder-capitalism-metrics-73b5e9f13d/>.
- Yankovskaya, V. V., Osavelyuk, E. A., Inozemtsev, M. I., & Haabazoka, L. (2021). The existing and perspective international institutions for supporting digital transformation of economy. In E. G. Popkova, & A. Krivtsov (Eds.), *The institutional foundation of the digital economy in the 21st century*. De Gruyter. <https://doi.org/10.1515/9783110651768-018>.
- Yukhno, A. S. (2020). Prospects and risks of using smart contracts in corporate governance. *Insurance Law*, 1, 40–43.
- Yukhno, A., & Osipov, V. (2021). Smart contracts and corporate governance: Prospects and risks of business digitalization. In I. Stepnov (Ed.), *Technology and business strategy: Digital uncertainty and digital solutions*. Palgrave Macmillan.
- Yukhno, A. (2021). The fourth industrial revolution and the new paradigm of corporate governance. In N. Konina (Ed.), *Digital strategies in a global market*. Palgrave Macmillan. https://doi.org/10.1007/978-3-030-58267-8_9.