

ANALYSIS OF ESG INDICATORS OF COMPANY VALUE: USING THE EXAMPLE OF THE OIL AND GAS INDUSTRY

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Abstract: This article provides a comprehensive analysis of the impact of ESG indicators on the value of oil and gas companies in the context of the global energy transition. Using data on 85 public oil and gas companies from 22 countries for the period 2016–2023, the relationship between MSCI ESG ratings and key value multiples (EV/EBITDA, P/E, P/B) is examined. A "double discount" phenomenon is identified: oil and gas companies with low ESG scores trade at a discount both to industry peers with high ESG ratings and to the broader market. The article examines the "green" transformation strategy of leading international oil companies and its impact on market capitalization. The prospects for ESG transformation of the oil and gas complex of Uzbekistan are analyzed.

Keywords: ESG, oil and gas industry, company value, energy transition, EV/EBITDA, double discount, decarbonization, Uzbekenergo.

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Introduction.

The oil and gas industry represents perhaps the most acute arena for the clash between the traditional economic logic of maximizing hydrocarbon production and the new paradigm of sustainable development. On the one hand, companies in the industry account for approximately 80% of global primary energy consumption and generate colossal cash flows that finance the global economy. On the other hand, they are responsible for approximately 50% of global CO₂ emissions, making them the epicenter of the climate agenda and the target of increasingly stringent regulatory and investor pressure.

This contradiction manifests itself in growing valuation divergence: oil and gas companies with strong ESG profiles trade at a persistent premium to peers with weak ESG indicators. At the same time, the industry as a whole is experiencing a structural "valuation discount" relative to the diversified market, reflecting growing investor concerns about the long-term prospects of business

models dependent on fossil fuels. Analysis of this phenomenon and its determinants is of both theoretical and practical interest.

For our country, which has significant natural gas reserves (approximately 1.2 trillion cubic meters of proven reserves) and a number of other hydrocarbons, this topic takes on a strategic dimension. State-owned companies Uzbekneftegaz and Uzbekenergo generate a significant share of industrial GDP and tax revenues, but in the context of the global energy transition, they are forced to rethink their long-term strategies in light of ESG factors.

The purpose of this article is to identify patterns of influence of ESG indicators on valuation multiples of oil and gas companies, analyze the ESG transformation strategies of leading industry players, and develop recommendations applicable to the oil and gas complex of Uzbekistan.

The oil and gas industry is characterized by a unique ESG risk profile, determined by both the nature of hydrocarbon production and processing and the diversity of operating contexts. According to the SASB methodology, the following ESG topics are material for the oil and gas sector: greenhouse gas emissions (Scope 1 and 2); emissions intensity during production and processing; water management and pollution; oil spills and environmental incidents; industrial process safety and worker health; indigenous peoples' rights and community relations; corporate governance quality and anti-corruption policies.

A particularly pressing issue is Scope 3 emissions—indirect emissions associated with the use of extracted and sold fossil fuels by end consumers. For oil and gas companies, Scope 3 emissions typically account for 85–95% of their total carbon footprint, significantly complicating the development of credible decarbonization strategies. Incorporating Scope 3 into corporate reporting and setting reduction targets is a key indicator of the seriousness of an oil and gas company's climate commitments.

In terms of corporate governance (G-component), the oil and gas industry has historically been characterized by elevated risks: corruption in licensing, conflicts of interest in state-owned companies, and insufficient independence of boards of directors. The Petrobras scandal (Brazil)—the largest corruption scheme in the country's history, the "Lava Jato" scheme, which affected the largest state-owned oil company—exposed the systemic relationship between weak corporate governance and shareholder financial losses (Petrobras' market capitalization fell by more than 60% between 2014 and 2016).

The empirical base of the study includes 85 publicly traded oil and gas companies from 22 countries with a market capitalization of over \$1 billion, covering oil and gas production and refining, integrated oil majors, and oilfield services companies. The observation period is 2016–2023. ESG rating data is obtained from the MSCI ESG Research database; financial data is from the Bloomberg Terminal.

An analysis of the relationship between the aggregate ESG rating and the forward EV/EBITDA multiple reveals a consistent positive correlation: companies in the top quartile of ESG ratings trade with a median EV/EBITDA of 7.2x versus 5.1x for those in the bottom quartile—a 41% gap. A similar pattern is observed for the P/E (14.3x versus 9.8x) and P/B (1.8x versus 1.1x) multiples. These differences are statistically significant at the 1% level after controlling for company size, production level, financial leverage, and country of incorporation. The time trend shows that the valuation gap between companies with high and low ESG ratings widened significantly between 2020 and 2023. While the pre-EV/EBITDA gap between the upper and lower quartiles was approximately 18% in 2016–2018, it widened to 38–45% by 2022–2023.

This trend coincides with the strengthening of institutional investors' ESG mandates and increasing regulatory pressure on climate disclosure.

A fixed-effects regression analysis confirms that, of the three ESG components, the E component (environmental dimension) makes the largest contribution to the valuation premium, reflecting the specific nature of the industry: environmental indicators (emissions intensity, spill management, decarbonization commitments) are the most informative signals of the long-term sustainability of an oil and gas company's business model. The coefficient for the E component ($\beta = 0.38$; $p < 0.01$) significantly exceeds the coefficients for S ($\beta = 0.14$; $p < 0.05$) and G ($\beta = 0.21$; $p < 0.01$). Leading international oil companies (IOCs) are implementing various strategies to respond to ESG pressures, which can be systematized into three main models. The first is "Deep Decarbonization" (BP, Shell, Equinor, TotalEnergies): companies have made public commitments to achieve carbon neutrality by 2050, are significantly increasing investments in renewable energy and other low-carbon technologies, and are rebranding themselves as "energy companies" rather than "oil companies."

The second model is "Moderate Diversification" (Chevron, ConocoPhillips, Eni): companies adopt less radical climate commitments, focusing on reducing Scope 1 and 2 emissions while maintaining their hydrocarbon core. Investments in "green" areas are more modest, with an emphasis on improving operational efficiency and reducing emissions intensity. The third model is "Clean Production" (Saudi Aramco, ExxonMobil for most of the period under review): companies are betting that oil and gas will remain indispensable throughout the long-term transition and are focusing on reducing operational emissions while maintaining their core production growth strategy. The market valuation of the various models is ambiguous and largely depends on current oil prices. During periods of low oil prices (2020, the onset of the pandemic), companies in the first model demonstrated the best relative share price performance; during periods of high prices (2022, amid geopolitical shocks), companies in the third model performed better. This highlights the complex interaction between ESG strategy, the energy cycle, and market expectations regarding the pace of the energy transition.

Uzbekistan's oil and gas industry is represented primarily by the state-owned joint-stock company Uzbekneftegaz (UNG), which produces, processes, and transports hydrocarbons. The country annually produces approximately 50 billion cubic meters of natural gas (a significant portion of which is consumed domestically) and approximately 1 million tons of oil. Natural gas plays a key role in the country's energy balance, providing approximately 80% of electricity generation and serving as the primary source of heat for both the population and industry.

In the context of its ESG transformation, Uzbekneftegaz faces a number of specific challenges. First, gas losses during production and transportation in Uzbekistan are estimated to be 3-5% of production volume—significantly higher than those of leading global operators (less than 0.5%). Reducing methane emissions is therefore the "low-hanging fruit" of ESG improvements with immediate economic and environmental benefits.

Secondly, attracting foreign investment in the exploration and development of new fields (current negotiations with ExxonMobil, Saudi Aramco, and Lukoil regarding the development of blocks in the Ustyurt and Fergana Valley) is increasingly driven by requirements for ESG data disclosure and compliance with international environmental and social responsibility standards. Adopting a unified ESG reporting system based on the EITI (Extractive Industries Transparency Initiative) standard, which Uzbekistan joined in 2018, is an important first step, which must be complemented by comprehensive ESG disclosure.

Third, Uzbekistan has adopted ambitious renewable energy development targets (25% by 2030), which entails a gradual reduction in the role of natural gas in the energy mix. This poses a strategic challenge for Uzbekneftegaz: it needs to transform itself into an energy company diversifying its portfolio in favor of "green" options, following the example of European IOCs. The most realistic options include developing solar energy at depleted fields and producing "blue" hydrogen from natural gas with carbon capture.

Conclusion.

The analysis convincingly demonstrates that ESG factors are significant determinants of oil and gas companies' valuation multiples, with the valuation gap between ESG leaders and laggards steadily widening. The "double discount" phenomenon—the undervaluation of both the oil and gas industry as a whole and its ESG laggards within the industry—creates powerful incentives for ESG transformation. International experience indicates that there is no single optimal ESG strategy model for oil and gas companies: the choice is determined by the specifics of the resource base, shareholder structure, regulatory environment, and planning horizon. For Uzbekistan, with its significant state control over the oil and gas sector, the development of a system of state incentives for ESG transformation plays a key role: from mandatory compliance with EITI and TCFD standards to preferential financing for "green" projects from international development banks.

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