SUSTAINABILITY REPORTING AND FINANCIAL TRANSPARENCY: DISCLOSING OPEX, CAPEX, AND TURNOVER IN LINE WITH THE EU TAXONOMY

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Rezumat. *Acest articol se concentrează pe domeniul aflat în continuă evoluție a raportării privind sustenabilitatea corporativă, concentrându-se pe practicile de publicare a cheltuielilor operaționale (OPEX), a cheltuielilor de capital (CAPEX) și a cifrei de afaceri în conformitate cu Taxonomia UE. Având în vedere că Taxonomia UE stabilește standardele pentru ceea ce constituie activități durabile din punct de vedere ecologic, în consecință, companiile se confruntă cu o presiune tot mai mare pentru a-și alinia declarațiile financiare. Articolul studiază cerințele de raportare ale Taxonomiei UE, explorând date despre modul în care companiile își aliniază declarațiile financiare cu criteriile specifice stabilite de Taxonomia UE. În corpul de conținut al articolului sunt evidențiate provocările comune cu care se confruntă companiile atunci când încearcă să își alinieze declarațiile financiare cu Taxonomia UE.*

Abstract. *This article concentrates on the evolving landscape of corporate sustainability reporting, focusing on practices for disclosing operational expenditure (OPEX), capital expenditure (CAPEX), and turnover in compliance with the EU Taxonomy. With the EU Taxonomy setting the standards for what constitutes environmentally sustainable activities, companies face increasing pressure to align their financial disclosures accordingly. The article studies the EU Taxonomy reporting requirements exploring data on how companies align their financial disclosures with the specific criteria set out by the EU Taxonomy. Common challenges that companies face when trying to align their financial disclosures with the EU Taxonomy are highlighted in the body of the article.*

Keywords: sustainability reporting, financial transparency, EU Taxonomy

DOI [10.56082/annalsarscieng.2026.1.74](https://doi.org/10.56082/annalsarscieng.2026.1.74)

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1. Introduction

The accelerating shift toward sustainable business practices has transformed the way companies measure, manage, and communicate their economic and environmental performance. As global stakeholders demand clearer evidence of corporate responsibility, sustainability reporting has evolved from a voluntary exercise into a strategic imperative. This transformation is particularly visible in the European Union, where regulatory initiatives such as the EU Taxonomy have redefined expectations for transparency in financial and non-financial disclosures. By establishing a unified classification system for environmentally sustainable activities, the EU Taxonomy compels companies to reassess how they report operational expenditure (OPEX), capital expenditure (CAPEX), and turnover in relation to sustainability objectives.

This article examines the evolving landscape of sustainability reporting with a focus on the disclosure of OPEX, CAPEX, and turnover in accordance with the EU Taxonomy. It explores the regulatory foundations of Taxonomy, outlines best practices for transparent reporting, and analyzes the practical difficulties companies encounter in achieving alignment. Through this lens, the study underscores the critical role of robust, taxonomy-aligned financial disclosures in fostering sustainable economic development and enhancing stakeholder trust.

2. Literature Review

Evolution of Sustainability Reporting

Sustainability reporting has become central to corporate governance, reflecting the recognition that long-term success depends on environmental and social responsibility—a shift that accelerated in the late 1990s and early 2000s (Hahn & Kühnen, 2013).

Growing pressures from climate change, resource scarcity, and inequality have further elevated its importance, with frameworks like TCFD promoting clearer and more comparable disclosures. Empirical evidence links sustainability performance to financial outcomes, with Eccles et al. showing that firms with strong sustainability practices outperform peers, and broader studies confirming positive correlations with stock market performance (Eccles et al., 2014; Friede et al., 2015). The EU Taxonomy reinforces this trend by requiring companies to report OPEX, CAPEX, and turnover against environmental objectives, embedding sustainability directly into financial metrics.

Financial Transparency as a Foundation for Sustainable Governance

Financial transparency is a cornerstone of effective corporate governance and a prerequisite for building trust with stakeholders. It involves the open disclosure of financial information that enables investors, regulators, and the public to

understand an organization's operations and performance. Bushman et. al. highlight that transparent firms tend to exhibit stronger governance practices and superior financial outcomes (Bushman et. al., 2010).

Transparency reduces information asymmetry and supports informed stakeholder decisions, with Ernst & Young reporting that 60% of institutional investors see insufficient transparency as a major barrier to investment (Ernst & Young, 2017). It is also essential for regulatory compliance, lowering legal risks and strengthening reputational capital; Francis et al. show that transparency-driven compliance improves stakeholder relationships and builds brand loyalty (Francis et al., 2004). In addition, financial transparency enhances risk management by revealing issues early and enabling timely corrective action.

The digitalization of financial reporting has amplified expectations for transparency. With real-time access to information, stakeholders demand timely and accurate disclosures. McKinsey notes that companies embracing digital transparency outperform competitors by building stronger customer and investor relationships in an information-driven economy (McKinsey & Company, 2021).

The EU Taxonomy: Purpose, Structure, and Implications

The EU Taxonomy represents one of the most ambitious regulatory initiatives in sustainable finance. It establishes a unified classification system for environmentally sustainable economic activities, aiming to redirect capital flows toward investments that support the EU's climate and environmental objectives. Alessi et al. describe Taxonomy as a tool that guides investors and companies through the transition to a low-carbon, resource-efficient economy (Alessi et al., 2021).

The EU Taxonomy supports the European Green Deal's 2050 climate-neutral goal by steering private capital toward sustainable activities, but it also brings challenges, including limited data, complex screening criteria, and the need for specialized expertise. Nevertheless, Schütze et al. argue that the Taxonomy has the potential to transform investment practices and accelerate sustainable economic growth (Schütze et al., 2023).

Operational Expenditure (OPEX) in Sustainability Reporting

OPEX refers to the day-to-day expenses required to operate a business, including salaries, utilities, maintenance, and rent. Garrison et al. [17] define OPEX as the ongoing cost of running a product, business, or system. Effective OPEX management is essential for profitability and operational efficiency. Bragg emphasizes that optimizing OPEX is crucial for maintaining competitive advantage and long-term sustainability.

OPEX is central to financial reporting, shaping metrics like operating margin and EBITDA, which investors widely use to assess performance (Drury). Under the EU Taxonomy, firms must disclose the share of OPEX tied to taxonomy-eligible

and taxonomy-aligned activities—a shift in reporting highlighted by Dusík and Streurer. Eligibility refers to activities listed in the regulation, while alignment requires meeting technical screening criteria, a distinction Alessi et al. stress as essential for accurately evaluating sustainability performance. The Taxonomy focuses on OPEX linked to maintaining and operating assets that support sustainable activities, ensuring disclosures reflect environmental performance rather than general operating costs, as argued by La Torre et al.

Best practices for OPEX reporting include robust data collection systems, cross-functional collaboration, transparent methodologies, and integration of Taxonomy criteria into budgeting processes. Muñoz-Torres et al. emphasize the need for granular data, while Zannakis et al. highlight the importance of breaking down organizational silos.

Capital Expenditure (CAPEX) and Long-Term Sustainability

CAPEX refers to investments in long-term assets such as equipment, buildings, and technology. Berk and DeMarzo define CAPEX as expenditures that enhance or maintain productive capacity. CAPEX decisions significantly influence future cash flow and firm valuation. Damodaran underscores the strategic importance of CAPEX in shaping long-term growth.

Unlike OPEX, which is expensed immediately, CAPEX is capitalized and depreciated over time, reflecting its long-term contribution to earnings. Weygandt et al. explain that this accounting treatment aligns with the enduring nature of capital investments.

At the macroeconomic level, CAPEX is a key indicator of economic health. Aghion et al. show that aggregate CAPEX levels correlate with growth prospects, prompting governments to use fiscal policies to stimulate investment.

Under the EU Taxonomy, companies must disclose the share of CAPEX that is taxonomy-aligned, a requirement applying to firms under the NFRD (Freiberg et al.). CAPEX alignment is crucial because it signals a company's future sustainability pathway, and Schütze et al. stress that it must support at least one environmental objective without harming others. Best practices include integrating sustainability into capital allocation, creating classification systems aligned with technical criteria, establishing strong governance, and offering transparent explanations of investment choices. Eccles and Klimenko highlight the need for strategic integration, while Christensen et al. emphasize transparency. Scenario analysis is increasingly used to test CAPEX resilience under varying climate and regulatory conditions, as noted by Chenet et al.

Turnover and Its Role in Sustainability Assessment

Turnover represents the total revenue generated from a company's primary activities. Kotler and Armstrong define turnover as gross sales income before deductions. Turnover is a key indicator of market performance, growth, and

competitive positioning. Novy-Marx finds that turnover can predict stock returns, while Porter argues that turnover relative to competitors reveals strategic strength.

Turnover also plays a role in financial ratios such as asset turnover, which measures how efficiently a company uses its assets to generate revenue. Fairfield and Yohn show that changes in asset turnover can predict future profitability.

Under the EU Taxonomy, companies must report the share of turnover from taxonomy-aligned activities, a key indicator of a firm's current sustainability profile (Schütze et al.). Turnover, together with CAPEX and OPEX, provides a comprehensive view of alignment (La Torre et al.). Assessing turnover requires evaluating activities against technical screening criteria and ensuring they contribute to environmental objectives without causing significant harm, guided by the six objectives outlined by Tölös et al.

Challenges in Aligning Financial Disclosures with EU Taxonomy

Aligning financial disclosures with the EU Taxonomy presents significant challenges. Taxonomy's breadth and complexity require companies to analyze diverse activities across multiple sectors.

Integrating the Taxonomy into existing reporting systems demands new processes, metrics, and coordination, often requiring upgraded data systems, new methodologies, and staff training. Evolving delegated acts add regulatory uncertainty, while meeting minimum social safeguards increases complexity. Still, research shows that Taxonomy alignment ultimately improves data quality, governance, and strategic planning.

Summary of Literature Review Findings

The literature demonstrates that sustainability reporting and financial transparency have become essential components of modern corporate governance. The EU Taxonomy represents a transformative regulatory framework that integrates environmental sustainability into financial reporting through the disclosure of OPEX, CAPEX, and turnover.

While Taxonomy offers significant benefits—enhanced transparency, improved investor confidence, and alignment with environmental objectives, it also presents substantial challenges. Companies must navigate complex technical criteria, address data gaps, integrate new reporting processes, and adapt to evolving regulatory expectations.

3. Methodology

This study adopts a quantitative, exploratory research design aimed at examining how companies disclose OPEX, CAPEX, and turnover in alignment with the EU Taxonomy and how these disclosures relate to sustainability performance, as measured through ESG Risk Ratings. The methodology combines descriptive

analysis, comparative assessment, and statistical modelling, enabling both a structural overview of reporting practices and an evaluation of relationships between Taxonomy-related financial indicators and ESG risk.

The research design is structured around two main components: A cross-industry case study of EU Taxonomy disclosures for the 2023 reporting year; A multiple linear regression analysis assessing the relationship between taxonomy-eligible but not aligned financial indicators and ESG Risk Ratings.

4. Case Study

For the next case study, we have considered thirty-six companies that have issued their 2023 EU Taxonomy Annual reports. The selected companies cover a wide range of industries like auto components, automobiles, chemicals, construction & engineering, construction materials, diversified financials, electrical equipment, healthcare, household products, machinery, paper & forestry, pharmaceuticals, retailing, semi-conductors, steel industry, software, technology hardware, telecommunications, transportation, and utilities.

In Figure 1 we can notice that 44% of the companies analyzed have zero taxonomy-my aligned turnover activities, meaning no sales activities are generated by sustainable activities, 31% of the companies have taxonomy aligned sales activities that make less than 10% of their total turnover. Only 25% of the companies exceed the 10% and even fewer (3 companies) exceed 50% of their total turnover from sustainable activities. Only two companies have their entire turnover generated by sustainable activities, Alfen that operates in the electrical equipment sector and Scatec, who activities in the utilities sector.

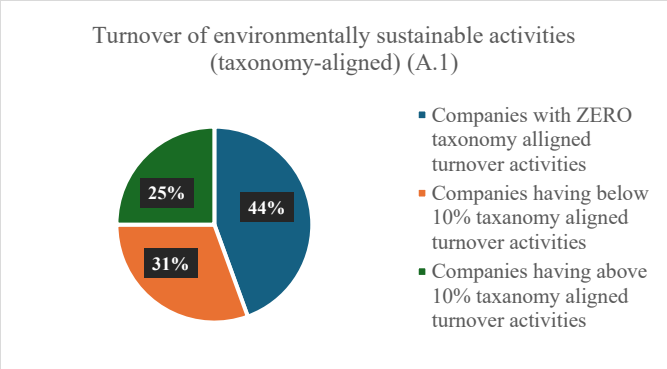

Fig. 1. The company's distribution based on declared turnover of environmentally sustainable activities (taxonomy-aligned).[5]

[5] Source: Authors' own research

Figure 2 depicts the company's distribution based on declared turnover of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) and it demonstrates the scale of improvement that is possible to turn eligible but environmentally sustainable activities into taxonomy-aligned activities. Only 11% of companies have declared that there are no sustainable activities eligible as part of the turnover, 28% companies can reach up to 10% improvement in the field while 61% of the companies can look at even higher rates of improvements to accommodate sustainable growth. 31% of the companies can improve their turnover markup by more than 50%, and three companies that activate in the sectors of transportation, healthcare and semiconductors production can go over 90%.

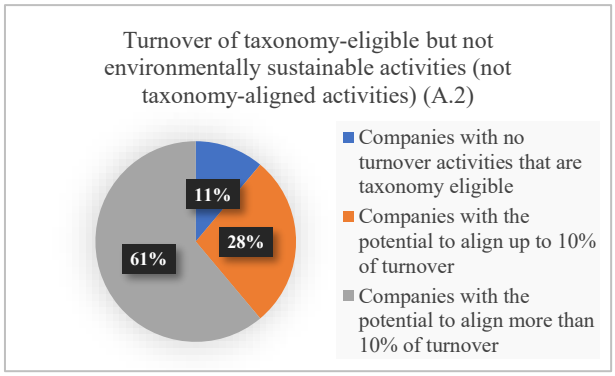

Fig. 2. The company's distribution based on declared turnover of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities).[6]

Figures 3 and Figure 4 focus on how capitalized investments are made from the perspective of sustainability. 39% of the companies have not made investments in acquiring, upgrading, or maintaining long-term assets such as property, plant, and equipment that are taxonomy aligned. 22% of the companies have invested less than 10% of their CAPEX in environmentally sustainable activities. It is also worthwhile mentioning that there are two companies in the utilities sector that have managed to concentrate almost their entire CAPEX spend (96.4% and 97%) on sustainable activities as part of their investment strategy.

[6] Source: Authors' own research

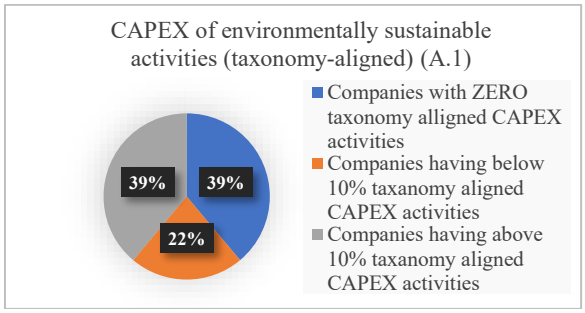

Fig. 3. The company's distribution based on declared CAPEX of environmentally sustainable activities (taxonomy-aligned).[7]

Figure 4 demonstrates the scale of improvement that can be achieved when it comes to sustainable investments. Only 3% of the companies declared that there are no CAPEX activities that are taxonomy eligible while more than 25% can improve their CAPEX spend percentage to 10% and most of the companies (72%) can exceed the 10%. Two companies have declared that potentially their entire CAPEX investment could turn into sustainable activities as they are already eligible according to EU Taxonomy.

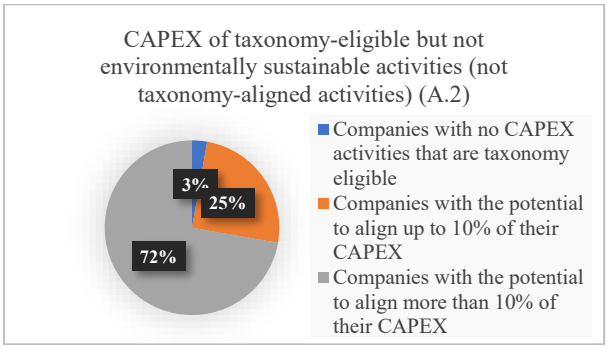

Fig. 4. The company's distribution based on declared CAPEX of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities).[8]

Figure 5 depicts what percentages of the ongoing cost for running the business go into sustainable activities. 44% have no OPEX transactions aligned with the EU taxonomy while 31% of the companies spend less than 10% of their daily operations on sustainable activities but there also companies (25%) that exceed the 10% cap and two companies have declared impressive percentages such as 97%

[7] Source: Authors' own research
[8] Source: Authors' own research

and 100%, meaning that almost all their entire operations activities cost is taxonomy aligned.

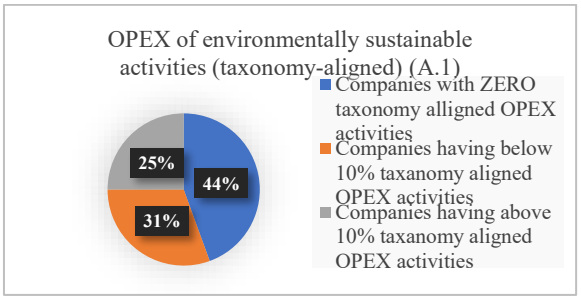

Fig. 5. The company's distribution based on declared OPEX of environmentally sustainable activities (taxonomy-aligned).[9]

Figure 6 demonstrates areas of improvement, even though 19% companies have declared that there are no OPEX activities that are taxonomy eligible, 25% of the companies mentioned that they could align up to 10% of their OPEX while 56% could go higher than 10%.

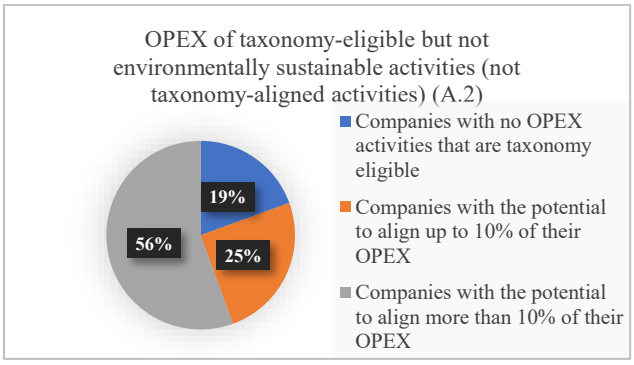

Fig. 6. The company's distribution based on declared OPEX of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities).[10]

Moving forward, we created a multiple linear regression between the variables ESG Risk Rating (source: Sustainalytics), CAPEX of taxonomy-eligible but not environmentally sustainable activities and OPEX of taxonomy-eligible but not environmentally sustainable activities. Main purpose is to determine whether there is a relationship between them and what is the nature of that relationship.

[9] Source: Authors' own research
[10] Source: Authors' own research

ESG Risk Rating = 18.612816 + 0.13652 CAPEX of taxonomy-eligible but not environmentally sustainable activities - 0.12531 OPEX of taxonomy-eligible but not environmentally sustainable activities.

An ESG risk rating evaluates how well a company manages its Environmental, Social, and Governance (ESG) factors, such as its impact on the environment, its relationship with employees and communities, and the quality of its corporate governance. The purpose of this rating is to help investors assess the non-financial risks that may affect the company's long-term performance and sustainability, beyond traditional financial metrics.

Results of the multiple linear regression indicated that there was a moderate collective significant effect between the CAPEX of taxonomy-eligible but not environmentally sustainable activities, OPEX of taxonomy-eligible but not environmentally sustainable activities, and ESG Risk Rating, ($F(2, 33) = 6.09$, $p = 0.006$, $R2 = 0.27$, $R2adj = 0.23$). The individual predictors were examined further and indicated that CAPEX of taxonomy-eligible but not environmentally sustainable activities ($t = 3.235$, $p = 0.003$) and OPEX of taxonomy-eligible but not environmentally sustainable activities ($t = -3.153$, $p = 0.003$).

In our model a high ESG Risk Rating means a severe risk. Investors want to avoid companies that could face future liabilities or operational risks due to poor ESG practices, such as environmental lawsuits, labor strikes, or regulatory penalties. On the other hand, a strong ESG performance can open doors to new market opportunities, like green energy solutions or socially responsible products. A company with strong ESG performance is often seen as being more adaptable to changing global trends and better at maintaining long-term profitability.

The above-mentioned linear regression demonstrates that if a company wants to lower the ESG Risk Rating, making it more attractive for potential investors it needs to decrease the CAPEX of taxonomy-eligible but not environmentally sustainable activities and increase the OPEX of taxonomy-eligible but not environmentally sustainable activities.

Table 1. Correlation Matrix

	A	***B***	***C***
ESG Risk Rating (A)	1	0.222155	-0.194192
CAPEX of taxonomy-eligible but not environmentally sustainable activities (B)	0.222155	1	0.678038
OPEX of taxonomy-eligible but not environmentally sustainable activities (C)	-0.194192	0.678038	1

Source: Authors' own research

R square (R2) equals 0.269432. It means that the predictors (X_i)) explain 26.9% of the variance of Y. Adjusted R square equals 0.225156. The coefficient of

multiple correlation (R) equals 0.519069. It means that there is a moderate correlation between the predicted data (ŷ) and the observed data (y).

Overall regression: right-tailed, $F(2,33) = 6.085182$, p-value = 0.00562854. Since p-value < $\alpha(0.05)$, we reject the H0. The linear regression model, $Y = b_0 + b_1X_1 + \cdots + b_pX_p + \varepsilon$, provides a better fit than the model without the independent variables resulting in, $Y = b_0 + \varepsilon$. All the independent variables (X_i) are significant. The Y-intercept (b): two-tailed, T = 14.430029, p-value = 8.88178e-16. Hence b is significantly different from zero.

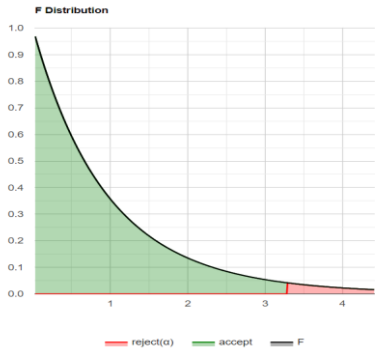

Fig. 7. Fdistribution[11]

Residual normality

Linear regression assumes normality for residual errors. Shapiro Wilk p-value equals 0.9878. It is assumed that the data is normally distributed.

Homoscedasticity - homogeneity of variance

The White test p-value equals 0.0000221656 (F=15.091046). It is assumed that the variance is not homogeneous. The coefficients' estimators are unbiased but inefficient estimators with large inaccurate standard errors, hence the statistical tests over the model and the coefficients are not accurate.

Multicollinearity - intercorrelations among the predictors (X_i)

There is no multicollinearity concern as all the VIF values are smaller than 2.5.

5. Conclusions

The EU Taxonomy stands as a pivotal initiative in the realm of sustainable finance, offering a standardized framework for defining and promoting environmentally sustainable economic activities. As it continues to evolve and be implemented, its impact on investment decisions, corporate strategies, and environmental outcomes will be profound, shaping the trajectory of sustainable development in the EU.

[11] Source: Authors' own research

The EU Taxonomy provides a structured and comprehensive approach to defining environmentally sustainable activities. By establishing specific criteria across six key environmental objectives and adhering to the DNSH (do no significant harm) principle, it aims to promote transparency, consistency, and credibility in sustainable investment. This framework not only helps investors make informed decisions but also encourages companies to align their operations with broader environmental goals, thereby contributing to a more sustainable future.

The EU Taxonomy's OPEX disclosure rules will have wide-reaching effects by standardizing how companies report sustainability-related operating expenses, improving transparency and comparability. Its CAPEX requirements similarly push firms to show how investment supports long-term sustainable value creation, while turnover disclosures mark a major shift toward linking revenue directly to environmentally sustainable activities.

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