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STRUCTURE OF THE ESG BOND MARKET IN THE UNITED KINGDOM IN YEARS 2020-2025

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Purpose: The aim of the study is to identify and interpret the determinants of the development of the sustainable finance instruments market in the United Kingdom in the years 2020-2025, taking into account the role of institutional factors. The analysis focuses on three dimensions: the types of issued instruments, the structure of issuers and the geographical structure of the markets on which the instruments are listed.
Design/methodology/approach: A quantitative analysis of data concerning the issuance of ESG instruments was employed, encompassing their classification, the structure of issuers and the concentration of stock exchange listings. The analysis was embedded in an institutional perspective. Hypotheses concerning the dominance of green bonds, the concentration of issuance among specific types of issuers and the concentration of trading on leading market platforms were subjected to verification.
Findings: The results show a clear concentration of the market in the green bond segment, the dominance of certain categories of institutional issuers and a strong concentration of listings on the largest trading platforms. The market structure is institutionalized and the standardization process encourages the concentration of capital in specific segments and financial centers.
Research limitations/implications: The study focuses on a single national market (the United Kingdom) and a specific time horizon (2020-2025). This approach requires caution when formulating conclusions of a universal nature that extend beyond the country under study. At the same time, the results indicate the need for further research and a more in-depth analysis of the institutional mechanisms influencing the architecture of sustainable finance markets.
Practical implications: The identification of market concentration and segmentation patterns enables support for the decision-making of regulators, financial institutions and issuers regarding instrument design, the choice of issuance and listing platforms, and the assessment of market competitiveness.
Keywords: ESG bonds; green bonds; institutional factors; market concentration; market structure; United Kingdom; sustainable finance.
Category of the paper: Research paper.

1. Introduction

Financing the climate, social, and governance (ESG) transition is increasingly shifting from the level of political declarations to concrete market mechanisms, in which debt instruments linked to environmental and social objectives play a particularly significant role. In this context, the sustainable finance instruments market is not merely another segment of financial innovation, but rather a space where relationships between public regulation, investor expectations, and corporate financing strategies are shaped (Huo et al., 2025; Chen et al., 2025; Rodrigues et al., 2025; Boermans, 2023). Over the past decade, the sustainable finance market has been developing rapidly, becoming a key channel for mobilizing capital for energy and climate transitions. Of particular importance in this process is the market for bonds linked to environmental and social objectives, which enable direct linkage of acquired financing to the implementation of specific investment projects. These instruments serve as an intermediary between long-term climate policy strategies and the decisions of institutional investors seeking assets aligned with ESG criteria (Tolliver et al., 2020; Chen & Zhao, 2021).

The structure of this market reflects not only the demand for capital but also the institutionalization of sustainable finance standards. Previous studies have primarily focused on the growth dynamics of the sustainable finance instruments market, financing costs, or the profitability of individual instruments, while its internal architecture remains underexplored. Meanwhile, elements such as the relationships between instrument types, issuers, and investors allow us to capture how institutional factors (regulatory, normative, and market-based) shape capital allocation patterns and reinforce specific operational models in the sustainable financial instruments market. For this reason, researchers are increasingly focusing not only on the scale of the ESG instruments market but also on its institutional structure. Analyzing market architecture allows us to understand the mechanisms of capital concentration, the role of dominant issuer categories, and the importance of market infrastructure in the allocation of sustainable development financing. From this perspective, the ESG instruments market can be viewed as an institutional system in which regulations, reporting standards, issuer strategies, and investor preferences co-shape long-term market patterns (Petry, 2020; Sapozhnikov et al., 2024; Baldi, Pandimiglio, 2022).

A particularly interesting sustainable finance market is the United Kingdom, which combines a developed financial sector with active policies supporting sustainable finance and a highly internationalized market infrastructure (Carlin et al., 2024; Bracking, 2024). Therefore, the aim of the study is to identify and interpret the determinants of the development of the sustainable finance instruments market in the United Kingdom in the years 2020-2025, taking into account the role of institutional factors. The analysis focuses on three dimensions: the types of instruments issued, the structure of issuers, and the spatial distribution of listings. The adopted perspective allows for the identification of mechanisms of institutional concentration, segmentation, and temporal stabilization.

The conducted analysis indicates a clear concentration of the market in the most standardized segments, the dominance of green bonds in the issuance structure, and the significant role of the largest institutional entities and leading trading platforms. The results suggest that market development is strongly institutionalized and focuses on specific forms of financing and market infrastructure.

The contribution of the manuscript is both empirical and structural. First, the study provides a systematic analysis of the architecture of the ESG bond market in the United Kingdom across instruments, issuers, and exchange listings. Second, it captures the degree of institutional market concentration and the role of dominant trading platforms. Third, it allows for the interpretation of these phenomena from an institutional perspective. The study also has an applied dimension, supporting the decision-making processes of regulators, financial institutions, and issuers in shaping sustainable finance policies, designing instruments, and selecting issuance and listing platforms.

However, the limitations of the present study should be noted. The study focuses on a single national market (the United Kingdom) and a specific time horizon (2020-2025). This approach requires caution when formulating conclusions of a universal nature that extend beyond the country and the studied time frame. Due to the relatively short time horizon of the analysed period (2020-2025), the study focuses on structural comparisons of issuance numbers and values rather than on econometric modelling of market dynamics.

The remainder of the article is organized as follows. The second section presents a literature review. This is followed by the research methodology and key empirical findings. The final section presents the discussion and conclusions.

2. Literature review

The literature on green finance covers a broad spectrum of topics, ranging from empirical and regulatory analyses to research on innovation and broadly understood sustainable development. In recent years, studies focusing on the functioning of green segments of capital markets and their role in reducing information asymmetries, enhancing market transparency, and supporting economic transformation have gained prominence. Brożek (2023) emphasizes that the development of green finance is closely linked to the level of economic innovation. Research indicates that increased investment in research and development correlates with higher utilization of renewable energy and lower per capita CO_2 emissions. This suggests that capital markets, by financing environmental innovations, can play a key role in energy and technological transformation.

Contemporary studies show that the development of the green financial instruments market is influenced by numerous macroeconomic, market, technological, and social factors (Abhilash et al., 2024; Fatmawatie et al., 2024; Gruishina et al., 2023; Paul, 2018; Puszer, 2019, p. 119; Caggiano, Greco, 2011; Van et al., 2025). At the same time, institutional factors and market infrastructure, including stock exchanges, are highlighted as overarching determinants of market development, shaping its scale, dynamics, credibility, and efficiency (Anh Tu et al., 2020; Umar et al., 2024; Gajewski, 2014). Of particular importance for the development of the green financial instruments market is the quality of regulatory and legal frameworks regarding climate policy. Previous studies indicate that a clearly defined sustainable development policy positively affects the green bond market (Grishunin et al., 2023). This is confirmed by Tolliver et al. (2020), who, using structural equation modeling (SEM), examined the impact of capital market growth factors and national commitments arising from the Paris Agreement (NDCs) on the volume of green bond issuance. Their results indicate that, among the analyzed variables, the most significant, positive, and statistically meaningful effect on the volume of green bond issuance was exerted by nationally determined contributions (NDCs). These findings demonstrate that national climate commitments constitute an important mechanism stimulating the development of the green bond market. Similar results were obtained by Saini & Shri (2024), who showed that political stability, regulatory quality, and efficient public administration are strategic factors for implementing sustainable finance at the national level. They also noted that these factors support the development of ESG reporting.

A second element of institutional infrastructure consists of uniform standards, taxonomies, and verification mechanisms. The literature indicates a positive correlation between the development of the green bond market and institutionalized classification and reporting systems such as the EU Taxonomy, ICMA Guidelines, and the Climate Bonds Standard. Their significance includes, among others, reducing due diligence costs, increasing demand for sustainable instruments, and mitigating greenwashing risk (Baldi, Pandimiglio, 2022; Chen, Zhao, 2021; Corapi, 2023). Conversely, the lack of uniform standards, ESG taxonomies, and impact measurement methods is identified as one of the main barriers limiting market development and increasing operational costs (Sapozhnikov et al., 2024; Ahir, Mahida, 2025; Chauhan, 2025). The importance of regulatory quality, political stability, and efficient public administration is also emphasized (Saini, Shri, 2024). Other studies on green bonds, such as Alsamani (2019), draw attention to the fragmentation of regulatory standards. Studying the green bond market in the United Kingdom, Alsamani highlights that this market is primarily based on voluntary guidelines, such as the Green Bond Principles (GBP) and the Climate Bond Standard (CBS), which limits its transparency and coherence. The author also notes that the lack of mandatory reporting requirements and the absence of a central supervisory institution for green finance increase the risk of greenwashing and hinder market development. In a comparative context, Alsamani analyzes regulatory systems in countries including France,

China, and the Nordic countries, noting that stricter legal frameworks foster faster growth of the green bond market.

More broadly, the literature emphasizes that the United Kingdom faces the need to strengthen the regulatory framework for green finance. The Accelerating Transition report (Carlin et al., 2024) and the essay by Bracking (2024) indicate that the current voluntary approach is insufficient and that the state should introduce more rigorous requirements regarding reporting, asset classification, and market supervision of green instruments. The authors propose, among other measures, the creation of a national green asset taxonomy, harmonization of standards with the European Union, strengthening the role of exchanges as supervisory institutions, and the issuance of new instrument classes, such as adaptation bonds. It is also noted that the United Kingdom - as a global financial center - has the potential to become a leader in green finance, provided that appropriate regulatory reforms are implemented.

Stoliarchuk et al. (2023) emphasize state involvement, which, through incentives, guarantees, and green public finance institutions, helps create initial transaction flows and reduce transaction costs. Similarly, Azam et al. (2022) show that in developing economies, basic market institutions such as property rights protection, contract enforcement, and the rule of law are important, promoting both the adoption of renewable energy and the development of sustainable finance.

Market infrastructure, particularly the functioning of stock exchanges, also plays a key role in the development of sustainable finance instruments (Próchniak et al., 2025). The literature highlights that exchanges act as institutional intermediaries, supporting the standardization of reporting, the visibility of issuers, and investors' access to reliable information (Petry, 2020; Sapozhnikov et al., 2024). Specialized trading platforms establish transparent listing rules, implement disclosure systems, and formalize reporting practices, which form the basis of market liquidity and positively influence investors' trust in sustainable finance instruments. The role of stock exchanges as institutions supporting green finance development is extensively described by Erhart (2018), who presents five pioneering European exchanges that have established specialized segments for green bonds: Oslo Børs, Nasdaq Stockholm, London Stock Exchange, Luxembourg Stock Exchange, and Borsa Italiana. These segments, based on additional listing criteria such as the obligation to disclose the use of proceeds, external verification, and regular reporting, act as quasi-regulators, enhancing issuance credibility and reducing information asymmetry. Erhart (2018) notes that these exchanges not only provide trading platforms but also shape market standards, conduct educational activities, and support the development of green indices and benchmarks.

The significance of exchange segments for reducing information asymmetry has been empirically confirmed by Stoczek (2025), who analyzes the impact of listing green bonds on specialized Green Bond Sections (GBS) on market liquidity. A study covering 482 corporate bonds found that listing on a GBS is associated with a statistically significant reduction in bid-

ask spreads, indicating reduced information asymmetry. This effect is particularly strong for smaller, high-risk, and unrated bonds, suggesting that exchange segments serve as signaling mechanisms, especially valuable for institutional investors. Importantly, Stoczek notes that the mere presence of bonds on a GBS - regardless of disclosure quality - has reputational value, highlighting the role of exchanges as trust-building institutions in the green instruments market.

Different conclusions emerge from Efremenko (2025), who examines the Green Economy Mark (GEM) on the London Stock Exchange, awarded to companies generating at least 50% of revenues from environmentally beneficial activities. The study found that although there is a short-term increase in stock prices on the announcement day, the effect quickly dissipates, and cumulative abnormal returns return to neutral levels. Moreover, GEM does not attract new investors or increase trading activity of existing shareholders. Efremenko argues that the mark does not provide investors with new information, as it is based on publicly available data (e.g., FTSE Green Revenues). Unlike bond segments, GEM does not function to reduce information asymmetry, and its impact on the market is limited.

Despite numerous studies on the determinants of ESG instrument market development, the literature focuses primarily on macroeconomic and regulatory factors, while structural analyses demonstrating how institutional factors translate into the internal architecture of the market (instrument segmentation, issuer concentration, and exchanges) are lacking. A literature review also indicates that the number of studies dedicated to the sustainable finance instruments market in the United Kingdom is limited. The present study fills this gap by providing a structural analysis of the UK market during 2020-2025.

Despite numerous studies on the determinants of green bond market development, the literature focuses primarily on macroeconomic and regulatory factors. At the same time, the literature still lacks structural analyses demonstrating how institutional factors translate into the internal market architecture (instrument segmentation, issuer and exchange concentration), especially with respect to individual national markets. This gap is particularly evident in the UK market, which, despite its global role in finance, remains relatively underexplored. In response to this identified research gap, the following research hypotheses were formulated:

H1: In the sustainable finance instruments market in the United Kingdom in 2020-2025, there is a persistent concentration of issuance value in the green bond segment.

H2: The structure of ESG bond issuance value in the United Kingdom is dual in nature - primarily determined by corporate and sovereign issuers, with the public sector generating a relatively small number of issuances but issuances of above-average nominal value.

H3: The sustainable finance instruments market issued by UK entities in 2020-2025 is characterized by a high and persistent degree of listing concentration on a single platform (London Stock Exchange), both in terms of the number of issuances and their value.

3. Sustainable Bond Market (SBM) on the LSE: an overview

The Sustainable Bond Market (SBM) is a specialized segment of the debt instruments market operating within the London Stock Exchange, concentrating on issuances linked to sustainable development goals and the financing of environmental and social projects. The SBM was developed based on the first dedicated green bond segment, launched by the LSE in 2015 in response to the growing needs of investors and issuers for transparency, standards, and access to capital directed toward low-carbon economic development.

The market offers a range of classification segments, including green, social, and sustainable bonds, transition bonds aimed at supporting the low-carbon transition, and issuer-level classifications, where the core activities of the issuer are aligned with environmental economy principles or their sustainability profiles meet specified criteria. Instruments listed on the SBM must comply with certain standards, such as disclosure of the use of proceeds, publication of sustainable finance frameworks, and engagement of external reviewers, all of which are intended to increase investor confidence and mitigate greenwashing risk.

The SBM functions as a platform for both primary and secondary markets, enabling issuers of various asset classes - from traditional bonds to more complex financial structures - to raise capital from a broad base of institutional investors with long-term investment horizons. Furthermore, the LSE facilitates the publication of key documents, including external opinions, sustainable finance frameworks, and annual reports on the achievement of environmental and social objectives, promoting greater transparency for market participants.

The SBM operates as a global market, attracting issuances from multiple countries and sectors, including large green bonds of international significance. For example, the market has listed bonds that were the first of their kind in specific regions regarding currency, structure, or geographical reach, highlighting the LSE's role as an important center for global sustainable finance. For issuers, the SBM provides access to a deep international capital base and benefits associated with increased visibility in the global capital market. For investors, it offers a source of diversified debt instruments with clearly defined proceeds dedicated to environmental and social objectives, facilitating the implementation of investment strategies aligned with ESG principles (Environmental, Social, Governance).

The development of the SBM also responds to the growing global demand for financing climate-related actions and the transition toward a low-carbon economy, as evidenced by its expansion from simple green bond segments to a multi-dimensional platform including social bonds and transition-linked instruments. In recent years, the market has continued to grow in terms of both the number of issuances and the total capital raised, making the SBM a key component of the global green finance architecture (londonstockexchange.com).

Contemporary literature on ESG finance covers a wide spectrum of topics, from empirical and regulatory analyses to research on innovation and broadly defined sustainable development. In recent years, particular attention has been paid to studies focusing on the functioning of green segments of capital markets and their role in reducing information asymmetries, enhancing market transparency, and supporting economic transformation. The literature emphasizes that capital markets - through green bond issuance, the creation of specialized exchange segments, and the development of reporting standards - play a significant role in mobilizing capital for environmental purposes. At the same time, empirical studies indicate that the effectiveness of these mechanisms depends on the quality of regulation, transparency of disclosures, and the capacity of infrastructural institutions to reduce information asymmetry and greenwashing risk.

4. Research methodology

The study has an empirical as well as descriptive-comparative character. Its objective is to analyze the structure of the ESG bond market in the United Kingdom during the years 2020-2025 based on quantitative data on the issuance of these instruments. The applied research approach focuses on identifying market heterogeneity across institutional and product dimensions, without formulating causal conclusions.

The analysis was directed towards comparing the significance of individual segments of the ESG bond market in terms of:

- instrument type (green bonds, social bonds, sustainability bonds, sustainability-linked bonds, and transition bonds),
- issuer type (corporate, financial institutions, sovereign, agency, municipal),
- listing exchange.

This classification framework directly corresponds to the tables and descriptions presented in the empirical section of the article.

The empirical basis of the study consists of data from the Environmental Finance Data database (efdata.org), covering ESG bond issuances in the United Kingdom from 2020 to 2025. All issuances available in the database for the specified period were included in the analysis, without additional sample selection.

The analysis of the ESG bond market was based on the following measures:

- number of issuances, treated as a measure of issuance activity,
- total issuance value, expressed in USD million, as a measure of financing scale,
- issuance structure by listing exchange, allowing for the assessment of market concentration.

These measures were compiled on an annual basis and across dimensions consistent with the presentation of empirical results.

5. Results

This chapter presents the results of the empirical analysis of the ESG bond market in the United Kingdom during 2020–2025, encompassing both the number of issuances and their total value. The analysis is based on data from the Environmental Finance Data database (efdata.org, 06.02.2024) and was conducted across dimensions of instrument type, issuer type, and listing exchange.

5.1. Number of ESG bond issuances

The analysis of the number of ESG bond issuances by instrument type (Table 1) indicates significant differentiation in market structure over the analyzed period. In 2020, the market was characterized by a relatively low number of issuances and a clear dominance of green bonds and social bonds, alongside a noticeable, though smaller, share of sustainability bonds. Sustainability-linked bonds and transition bonds played a marginal role in that year.

The year 2021 saw a marked increase in the number of issuances across all major market segments. The number of green bond and sustainability bond issuances increased most significantly, leading to a substantial expansion of the ESG instrument structure present in the UK market. At the same time, the number of sustainability-linked bond issuances also grew noticeably, although these instruments remained a relatively small-scale segment.

During 2022-2025, the structure of issuance numbers showed increased volatility. The number of green bond issuances remained at a relatively stable level, whereas the significance of sustainability bonds fluctuated, with notable increases in 2022 and 2024 and a decline in 2023 and 2025. Sustainability-linked bonds remained a niche instrument throughout the analyzed period, while transition bonds appeared only sporadically, confirming their marginal role in the quantitative structure of the ESG bond market.

Table 1.
Number of ESG bond issuances by instrument type

Year	Green bond	Social bond	Sustainability bond	Sustainability-Linked bond	Transition bond
2020	14	11	7	-	1
2021	50	15	24	11	1
2022	32	6	31	7	-
2023	26	6	12	2	-
2024	34	17	29	5	-
2025	35	6	19	3	-

Source: own calculations based on efdata.org.

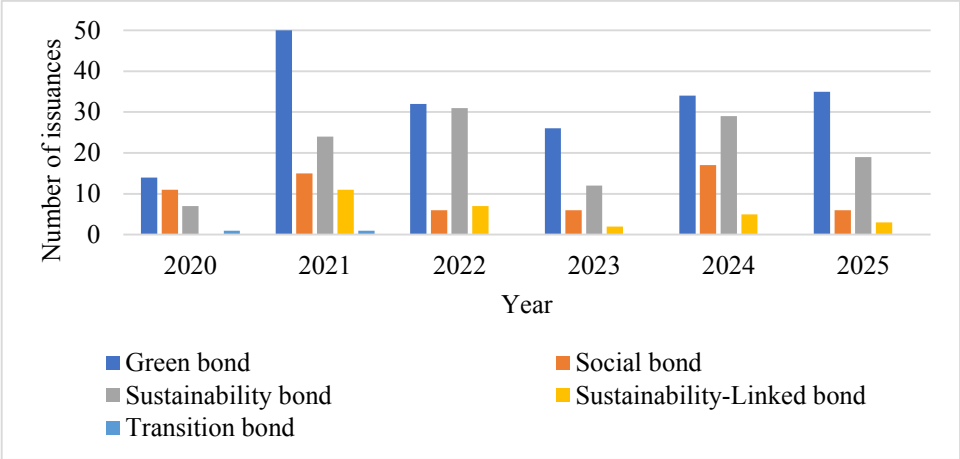

Figure 1. Number of ESG bond issuances by instrument type.

Source: own calculations based on efdata.org.

The structure of ESG bond issuances by issuer type (Table 2) highlights the dominant role of corporate issuers in 2020-2021. From 2022 onwards, the share of financial institutions increased, which in selected years became the largest group of issuers. Sovereign, municipal, and agency issuances occurred only sporadically, confirming the limited role of the public sector in shaping the number of ESG bond issuances.

Table 2.
Number of ESG bond issuances by issuer type

Year	Agency	Corporate	Financial Institution	Municipal	Sovereign
2020	-	28	5	-	-
2021	-	73	24	2	2
2022	1	30	42	-	3
2023	-	31	8	-	7
2024	-	67	13	5	-
2025	-	42	15	1	5

Source: own calculations based on efdata.org.

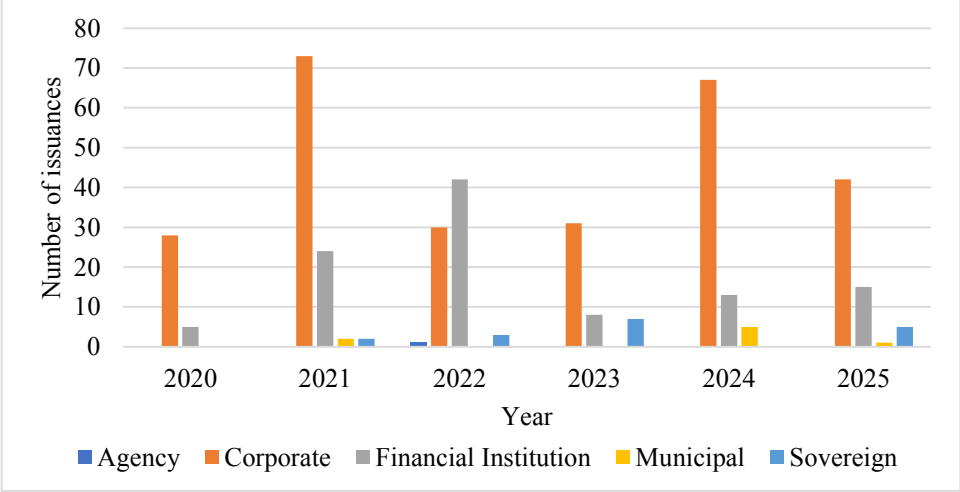

Figure 2. Number of ESG bond issuances by issuer type.

Source: own calculations based on efdata.org.

Although analyzing the number of issuances captures differences in issuance activity across market segments, a more comprehensive assessment of their significance in market structure requires consideration of issuance value, which in the subsequent part of the chapter forms the basis for analyzing the scale of financing by instrument type, issuer type, and listing exchange.

5.2. Value of ESG bond issuances

The analysis of ESG bond issuance values by instrument type (Table 3) indicates a strong concentration of market value in the green bond segment throughout the 2020-2025 period. In all years, green bonds generated the highest total issuance value, with particularly high levels observed in 2021 (USD 38,4 billion), and subsequently in 2023-2025, when issuance values remained above USD 30 billion per year. Following the pronounced peak in 2021, issuance value declined in 2022, before returning to high levels in subsequent years, indicating significant value volatility within this market segment.

The second most significant category in terms of issuance value is sustainability bonds. The issuance value of these instruments reached its highest levels in 2021 (USD 9,8 billion) and 2024 (USD 8,6 billion), with noticeably lower values in the other years.

Social bonds showed relatively lower total issuance value compared to green and sustainability bonds. Nevertheless, issuance values increased in 2024 (USD 7,1 billion) and remained elevated in 2025, indicating the growing importance of this segment in the final phase of the analyzed period.

Sustainability-linked bonds remained instruments of limited value significance. After a relatively high issuance value in 2021 (USD 5,9 billion), a marked decline occurred in 2022-2024, followed by a rebound in 2025. The absence of a clear upward trend confirms the unstable character of this segment.

Transition bonds appeared only sporadically and accounted for a marginal share of total market value.

Table 3.
ESG bond issuance value (in million USD) by instrument type

Year	Green bond	Social bond	Sustainability bond	Sustainability-Linked bond	Transition bond
2020	3727,96	1565,31	2850,57	-	557,30
2021	38446,85	4355,83	9757,49	5868,91	745,80
2022	19803,89	2051,18	4321,52	2293,75	-
2023	33267,01	2362,96	3659,65	1008,27	-
2024	30596,86	7145,99	8612,48	1627,01	-
2025	31338,79	4918,14	6784,79	2286,71	-

Source: own calculations based on efdata.org.

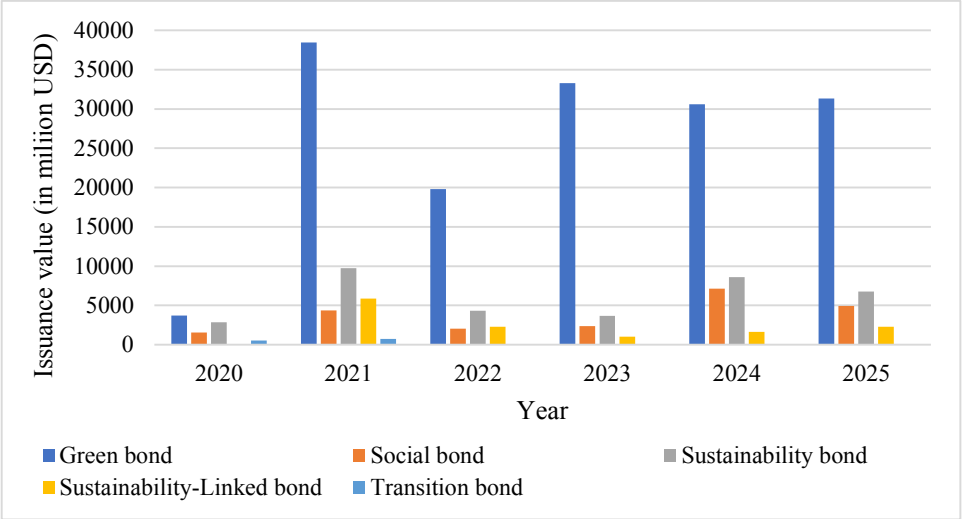

Figure 3. ESG bond issuance value (in million USD) by instrument type.

Source: own calculations based on efdata.org.

Comparison of ESG bond issuance values by issuer type (Table 4) indicates a clear concentration of market value in two groups: corporate and sovereign. In individual years, value dominance alternates between these two categories.

Table 4.
ESG bond issuance values (in milion USD) by issuer type

Year	Agency	Corporate	Financial Institution	Municipal	Sovereign
2020	-	7341,39	1359,74	-	-
2021	-	30883,94	5608,79	757,66	21924,49
2022	298,40	12056,89	4409,00	-	11706,05
2023	-	16119,61	1612,83	-	22565,45
2024	-	25913,88	5473,36	-	16595,09
2025	-	22014,88	8204,40	412,00	14697,15

Source: own calculations based on efdata.org.

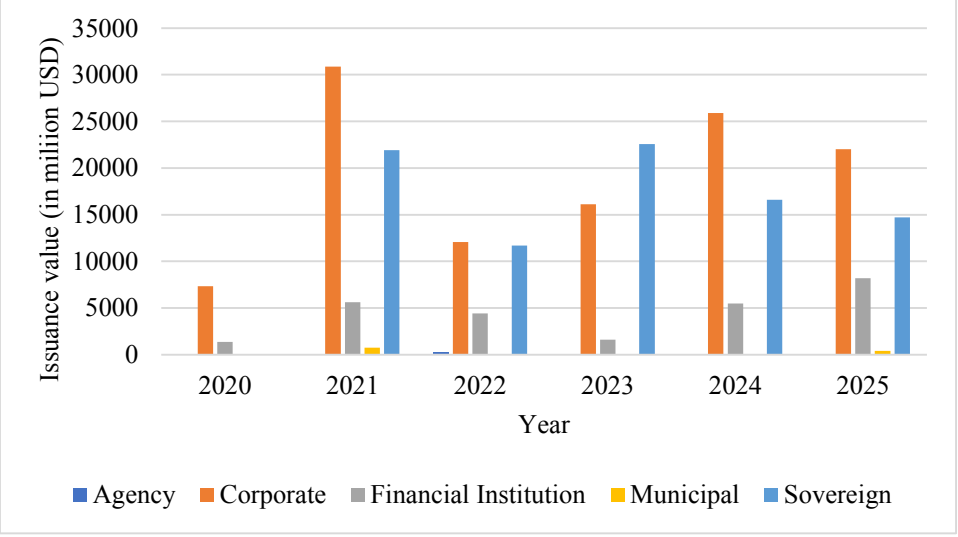

Figure 4. ESG bond issuance values (in milion USD) by issuer type.

Source: own calculations based on efdata.org.

In 2020-2021, the highest issuance values (Table 4) were generated primarily by corporate issuers, reaching over USD 30 billion in 2021. At the same time, sovereign issuances in the same year reached a very high value (USD 21,9 billion), indicating the significant role of individual, large-scale issuances in shaping the aggregate market value.

In 2022, issuance values declined in both the corporate and sovereign segments, while the importance of financial institutions increased, with their issuances totaling USD 4,4 billion. This trend continued in the following years, as financial institutions gradually expanded their issuance scale, reaching over USD 8,2 billion in 2025.

Sovereign issuers played a particularly important role in 2023–2025, generating very high issuance values despite a relatively small number of transactions (e.g., USD 22,6 billion in 2023 and USD 16,6 billion in 2024). The high issuance values in this segment highlight the substantial impact of individual issuances on overall market value.

Agency and municipal issuers accounted for a marginal share of ESG bond issuance value. Their activity was sporadic and did not significantly affect the overall value structure of the market during the analyzed period.

5.3. ESG bond issuances by listing exchange in 2020-2025

The distribution of ESG bond issuances by listing exchange (Table 5) indicates a strong concentration of issuance activity on the London Stock Exchange (LSE) throughout the analyzed period. The LSE remains the dominant listing venue for ESG issuances, accounting for the vast majority of transactions each year. This phenomenon is particularly pronounced in 2024, when the number of issuances listed on the LSE reaches the highest level in the entire study period, significantly surpassing the combined activity of other exchanges.

Other listing platforms serve a supplementary and specialized role. Euronext Dublin and the Luxembourg Stock Exchange show moderate but relatively stable presence, especially in 2021-2022 and 2024. Their significance should be interpreted as a result of favorable regulatory frameworks and the reputation of these markets in sustainable finance instruments.

Other exchanges, including the Johannesburg Stock Exchange, Hong Kong Stock Exchange, Frankfurt Stock Exchange, and SIX Swiss Exchange, appear only sporadically, with listed issuances being isolated cases. This indicates that, from the perspective of UK issuers, these exchanges do not constitute a systemically significant alternative, but rather occasional listing channels for specific issuances.

Table 5.
Number of ESG bond issuances by listing exchange

Year	2020	2021	2022	2023	2024	2025
Listing exchange	**Issaunce value**					
London Stock Exchange	25	19	10	18	40	27
Euronext Dublin	2	9	7	1	11	2
Luxembourg Stock Exchange	3	5	1	3	2	3
Gibraltar Stock Exchange	-	1	-	-	-	-
Johannesburg Stock Exchange	-	-	2	-	1	-
Hong Kong Stock Exchange	-	-	1	-	2	-
Frankfurt Stock Exchange	-	-	1	-	-	-
Taipei Stock Exchange	-	-	2	1	2	1
Vienna Stock Exchange	-	-	-	1	-	-
Oslo Stock Exchange	-	-	-	-	1	-
SIX Swiss Exchange	-	-	-	-	1	-
Total number of issuances	**30**	**34**	**24**	**24**	**60**	**33**

Source: own calculations based on efdata.org.

The analysis of ESG bond issuance values by listing exchange (Table 6) confirms the conclusions drawn from the analysis of issuance numbers, while also revealing an even higher degree of market concentration in terms of value. The London Stock Exchange consistently generates the highest issuance value each year, with particularly strong growth observed in 2023–2024. This indicates that the LSE's dominance is not solely due to the number of listed issuances, but also to the concentration of the largest-value transactions.

In 2024, the value of issuances listed on the LSE exceeded USD 22 billion, reflecting the accumulation of large green and sustainability bond issuances. This underscores the central role of the LSE as the main platform for ESG capital allocation for UK issuers.

The value of issuances on the Luxembourg Stock Exchange shows high interannual volatility, with 2021 recording an exceptionally high issuance value despite a relatively small number of transactions. This suggests the presence of individual, large-scale issuances that significantly influence aggregate data, but do not alter the structural position of this exchange relative to the LSE.

Euronext Dublin, in turn, shows moderate issuance values throughout the period, which, combined with a relatively higher number of issuances in selected years, indicates a specialization in smaller-average-value issuances, often used by issuers with more diversified profiles.

Other exchanges account for a marginal share of total issuance value, with their market participation being sporadic and not significantly affecting the aggregated structure of the ESG bond market.

Table 6.
ESG bond issuance values by listing exchange (in million USD) in 2020-2025

Year	2020	2021	2022	2023	2024	2025
Listing exchange	**Issuance value (in milion USD)**					
London Stock Exchange	4037,55	5719,23	6241,29	15649,18	22705,87	12530,33
Euronext Dublin	373,30	999,03	41,19	300,00	305,35	24,87
Luxembourg Stock Exchange	346,51	9223,04	-	1674,51	1312,69	685,65
Gibraltar Stock Exchange	-	2,5	-	-	-	-
Johannesburg Stock Exchange	-	-	46,20	-	47,93	-
Hong Kong Stock Exchange	-	-	41,07	-	575,05	-
Frankfurt Stock Exchange	-	-	159,68	-	-	-
Taipei Stock Exchange	-	-	55,00	47,77	60,00	20,00
Vienna Stock Exchange	-	-	-	75,00	-	-
Oslo Stock Exchange	-	-	-	-	62,50	-
SIX Swiss Exchange	-	-	-	-	249,48	-

Source: own calculations based on efdata.org.

The combined analysis of issuance numbers and values by listing exchange indicates that the UK ESG bond market in 2020-2025 shows a high degree of geographic and institutional concentration. The dominance of the London Stock Exchange is evident both in terms of volume and value, confirming its role as a key infrastructural hub for ESG financing.

At the same time, the presence of specialized European exchanges, such as Euronext Dublin and the Luxembourg Stock Exchange, points to the existence of alternative listing channels, which, however, do not challenge the central position of the LSE. This market structure promotes liquidity concentration and instrument standardization, but it may also limit the diversification of listing venues over the longer term.

The analysis of the percentage shares of the London Stock Exchange (LSE) in both the number and value of ESG bond issuances (Table 7) confirms the strong structural dominance of this platform in the UK market during the period 2020-2025. In most years, the LSE accounted for the clear majority of listed instruments. Its share in the total number of ESG bond issuances ranged from 41,7% in 2022 to over 80% in 2020 and 2025, indicating that the majority of UK ESG bonds are listed on this exchange.

Table 7.
Percentage shares of the London Stock Exchange in the number and value of ESG bond issuances in 2020-2025

Year	Share of the number of emissions	Share of emission value
2020	83,3%	84,9%
2021	55,9%	35,9%
2022	41,7%	94,8%
2023	75,0%	88,2%
2024	66,7%	89,7%
2025	81,8%	94,5%

Source: own calculations based on efdata.org.

An even stronger concentration can be observed in terms of issuance value. With the exception of 2021, the LSE generated between approximately 85% and 95% of the total issuance value, reaching particularly high levels in 2022 (94,8%) and 2025 (94,5%).

This suggests that the largest-value ESG bond transactions are predominantly concentrated on this platform.

The only notable deviation from this pattern occurred in 2021, when the LSE's share in issuance value declined to 35,9%, despite maintaining a majority share in the number of issuances. This discrepancy indicates that several high-value transactions were listed on alternative exchanges in that year. Nevertheless, the subsequent years confirm the persistent dominance of the LSE as the primary infrastructural hub for ESG bond listings by UK issuers.

Overall, the results clearly demonstrate a high degree of geographic and institutional concentration of ESG bond listings. The very high market shares of the London Stock Exchange indicate a strongly centralized market structure, with the LSE functioning as the central infrastructural hub for ESG bond issuance by UK entities.

These results provide strong empirical support for Hypothesis H3, confirming the persistent concentration of ESG bond listings and issuance value on a single dominant trading platform, namely the London Stock Exchange.

6. Discussion

The empirical results presented in chapter 4 allow for the formulation of conclusions regarding the structure and evolution of the ESG bond market in the United Kingdom during 2020-2025. The analysis reveals that the development of this market was uneven and selective, both in terms of instruments, issuers, and listing exchanges.

First, our analysis confirms the dominant role of green bonds in the UK market structure. Both the number of issues and their value indicate a persistent market concentration in this segment. This result is consistent with the findings of previous studies, which indicate that green bonds remain the most developed and standardized segment of the sustainable finance market (Rodrigues et al., 2025; Sapozhnikov et al., 2024). Other types of ESG bonds play a complementary role, with sustainability bonds showing periodic increases in significance, while sustainability-linked bonds and transition bonds remain marginal segments. Similar conclusions are drawn by Chen et al. (2025), who emphasize that institutional investors' preferences favor instruments with a clearly defined environmental objective, which strengthens the position of green bonds in the market structure.

Second, comparing the number of issuances with their value indicates no clear correlation between issuance activity and the scale of financing. Segments with a high number of issuances do not necessarily account for the largest share of market value, confirming the appropriateness of using both measures in parallel when analyzing market structure.

Third, analysis of the market structure by issuer type indicates the coexistence of two main groups of entities shaping the market's value: corporate issuers and sovereign issues. Corporate issuers account for the largest number of issues, while sovereign issues generate very high transaction values. This result is consistent with the observations of Tolliver et al. (2020), who indicate that government involvement in meeting climate commitments can lead to the issuance of large-value green bonds. At the same time, the observed increase in the importance of financial institutions as issuers confirms the institutionalization of the green finance market (Anh Tu et al., 2020; Azam et al., 2022).

Fourth, the obtained results confirm the strong concentration of ESG bond listings on a single exchange platform – the London Stock Exchange. The literature emphasizes that stock exchanges play a significant role in the development of the green finance market by creating specialized trading segments and standardizing disclosures (Erhart, 2018; Petry, 2020). The LSE's dominance can be interpreted as a manifestation of the centralization of financial infrastructure and the effect of the exchange's reputation as a global hub for financing sustainable development. The obtained results are also consistent with Stoczek's (2025) research, which indicates that specialized green bond segments can reduce information asymmetry and increase market liquidity. Concentrating issues on a single platform may promote the standardization of reporting practices and increase market transparency.

At the same time, it should be noted that the observed market concentration may also have potential consequences for its competitive structure. As Alsamani (2019) points out, the UK green bond market operates largely based on voluntary regulatory standards. This may limit the market's institutional diversification and lead to its concentration around the largest entities and trading platforms.

The results confirm the importance of institutional factors in shaping the structure of the ESG bond market. At the same time, they indicate that the development of this market in the UK is proceeding selectively, concentrating around the most standardized instruments, the largest issuers, and the dominant stock exchange infrastructure.

7. Conclusions

A study of the structure of the ESG bond market in the UK from 2020 to 2025 allows us to draw several key conclusions. First, the market is characterized by the persistent dominance of green bonds in terms of both the number of issues and their value. Second, the issuer structure indicates the complementary role of corporate and sovereign issuers. Third, the market is characterized by a high degree of infrastructural concentration, reflected in the dominance of the London Stock Exchange as the main platform for listing ESG instruments. The results confirm the significant role of institutional factors in shaping the architecture of the sustainable

finance market. Finally, the findings indicate that variations in total market value are strongly influenced by the scale of individual issuances rather than by the number of issued ESG instruments.

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