APPLYING ESG PRINCIPLES IN BANKING OPERATIONS: A REVIEW OF RESEARCH AND POLICY IMPLICATIONS

Assoc. Prof., To Ngoc Hung, Dr. Nguyen Dinh Trung
Hoa Binh University
Corresponding Author: ndtrung@daihochoabinh.edu.vn

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Abstract

In the context of the global transition toward sustainable development and increasing demands for financial transparency, Environmental, Social, and Governance (ESG) factors have emerged as new standards in banking operations. Integrating ESG criteria not only influences risk management strategies, capital mobilization, and asset valuation, but also reshapes the asset structure of banks. This paper synthesizes international research findings and practical experiences on the application of ESG principles in banking, identifies key trends and global challenges in ESG implementation, and draws policy implications for Viet Nam in the context of the National Strategy for Green Growth and sustainable finance transition.

Keywords: *ESG, banking, sustainable development, green credit.*

Áp dụng các nguyên tắc ESG trong hoạt động ngân hàng: Tổng quan nghiên cứu và hàm ý chính sách

PGS.TS. Tô Ngọc Hưng, TS. Nguyễn Đình Trung
Trường Đại học Hoà Bình
Tác giả liên hệ: ndtrung@daihochoabinh.edu.vn

Tóm tắt

Trong bối cảnh chuyển đổi sang phát triển bền vững và yêu cầu minh bạch tài chính toàn cầu ngày càng cao, các yếu tố Môi trường, Xã hội và Quản trị (Environmental, Social and Governance - ESG) đã trở thành chuẩn mực mới trong hoạt động ngân hàng. Việc tích hợp các yếu tố ESG không chỉ ảnh hưởng đến chiến lược quản trị rủi ro, huy động vốn và định giá tài sản, mà còn tái định hình cấu trúc tài sản ngân hàng. Bài viết này tổng hợp các kết quả nghiên cứu và thực tiễn quốc tế về áp dụng các nguyên tắc ESG vào hoạt động ngân hàng, nhận dạng xu hướng, các thách thức toàn cầu trong triển khai ESG, từ đó, rút ra các hàm ý chính sách cho Việt Nam trong bối cảnh thực hiện Chiến lược quốc gia về tăng trưởng xanh và chuyển đổi tài chính bền vững.

Từ khóa*: ESG, ngân hàng, phát triển bền vững, tín dụng xanh.*

Introduction

In recent decades, the concept of Environmental-Social-Governance (ESG) has become a global trend, reflecting a fundamental shift in approaches to economic and financial development. ESG standards emphasize social and environmental responsibility andare also closely associated with an organizational governance capacity, transparency, and sustainability. In the banking sector, ESG plays an increasingly important role in risk management, reputation building, and the ability to mobilize capital in international markets.

The rapid growth of ESG-linked investments, together with global commitments to achieve carbon neutrality by the mid-21st century, has motivated major banks worldwide to integrate ESG into their operational strategies. Mechanisms such as ESG ratings, green bonds, and the Net-Zero Banking Alliance demonstrate that ESG is no longer a symbolic or optional choice; it has become a necessary condition for maintaining competitive advantage and securing access to international funding sources.

In Viet Nam, the adoption of ESG in banking is still at an early stage but has shown clear progress. The State Bank of Viet Nam has encouraged green credit, while the Prime Minister has issued environmental criteria and regulations for certifying investment projects under the national green taxonomy (Decision No. 21/2025/QD-TTg). Several major commercial banks have begun integrating ESG into their operations. However, the scale of green finance remains small, data systems are fragmented, and standards are not yet harmonized. Therefore, studying international experience on ESG integration in banking, analyzing its current application in Viet Nam, and deriving policy implications is essential to ensure that the banking system both aligns with global standards and effectively supports the domestic green transition and sustainable development.

1. Overview of ESG and Its Application in Banking Operations

1.1. Definition and Components

Investment in sustainable development has become one of the most important global trends in asset management, prompting banks to adopt ESG principles to encourage clients to minimize negative impacts on the environment, society, and corporate governance.

According to IFC guidelines, ESG in the banking sector refers to the integration of environmental, social, and governance factors into business strategy, credit activities, risk management, and disclosure practices. This approach seeks to assess and mitigate non-financial risks while promoting sustainable finance and generating long-term value for stakeholders. Embedding ESG into banking operations enhances transparency, resilience to climate-related risks, and the role of banks in supporting the green transition [1-2].

The main ESG components include:

- *Environmental Factors:* Limiting financing for polluting projects; promoting green credit, green bonds, and investments in renewable energy; managing environmental risks in the credit portfolio.

- *Social Factors:* Human resources policies, employee welfare, and gender equality within the bank; social impacts of financial products/services (e.g., financial inclusion, support for SMEs, consumer protection).

- *Governance Factors:* Transparent governance, balanced board structure; risk management, regulatory compliance, anti-corruption and anti-money laundering; ESG disclosure aligned with international standards such as the Task Force on Climate-related Financial Disclosures (TCFD), International Sustainability Standards Board (ISSB), and Global Reporting Initiative (GRI).

1.2. Motivators for the Adoption of ESG Indicators in Banking Operations

Many major banks globally have recently integrated ESG into their operations and risk management, including credit, investment, and governance practices. This approach enables banks to improve their reputation, boost customer loyalty, and benefit corporate borrowers.

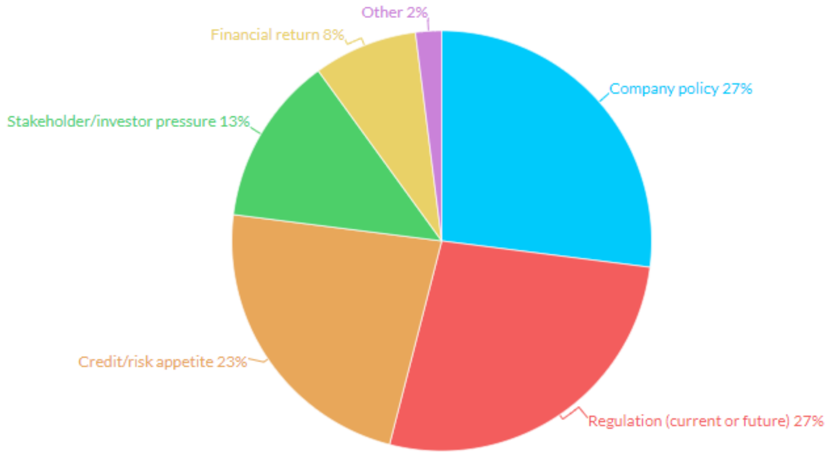
Surveys indicate that 76% of consumers cease using a company's products or services due to neglect of environmental or employee responsibilities. Such behavior leads to market losses, reduced revenue, lower profits, and consequently higher credit risks for banks [3]. Therefore, banks have increasingly integrating ESG criteria into their standard credit assessment processes.

Additionally, large institutional investors are divesting from high-emission sectors. In 2021, two major New York pension funds announced plans to withdraw USD 4 billion from fossil fuel companies [4]. Norges Bank Investment Management - Norway's largest sovereign wealth fund - also sold all oil and gas stocks and stopped investing in coal [5]. This has significantly increased capital-raising costs for companies in these sectors compared with 5-10 years ago.

However, adopting ESG does not mean that high-emission industries lose access to finance. Modernization projects, energy efficiency improvements, and shifts toward cleaner technologies remain eligible for ESG financing.

According to a report by Fitch Ratings, the most common main drivers for incorporating ESG into their underwriting processes include corporate policy (27%); current or future regulatory requirements (27%); risk appetite (23%); investor pressure (13%); and expected profitability (8%) [6].

Figure 1. Drivers of Banks' Use of ESG in Underwriting



Source: Fitch Ratings' global survey of 182 banks in 3Q19

1.3. ESG Ratings and Their Purposes

ESG compliance is often reflected through rating systems developed by institutions such as Morgan Stanley Capital International (MSCI), Sustainalytics, Institutional Shareholder Services, and S&P Global. These organizations collect ESG data through surveys or publicly available sources and assign scores based on the level of risk a firm faces relative to industry peers. Some agencies also develop ESG indices for asset managers and other institutions to structure ESG-themed funds and financial products [4].

For banks, ESG ratings support deeper corporate analysis, more accurate risk identification, and stronger assessments of long-term prospects. Firms that comply with ESG criteria are often seen as having more stable growth potential compared to those focused solely on short-term profits. As a result, banks can reduce potential losses and mitigate reputational risks.

1.4. ESG-related Banking Products

(i) ESG-linked loans

Loan interest rates are adjusted based on the borrower's ESG performance. In many cases, firms must obtain an international ESG rating (e.g., Sustainalytics, MSCI). This helps banks avoid greenwashing - situations where firms falsely claim to be environmentally friendly [4].

(ii) Green bonds and green loans

International standards such as the *Green Bond Principles* and *Sustainability-Linked Loan Principles* serve as key frameworks for loans and bond issuances. The EU has also introduced rules requiring companies to provide scientific evidence for environmental claims to prevent greenwashing [7-9].

(iii) ESG products for retail customers

Many banks issue green credit cards, offer loans for electric vehicles, or provide mortgages for eco-friendly housing built with sustainable or energy-efficient materials. For example, VTB Bank (Russia) offers mortgage loans for high energy-efficiency homes at interest rates 1.6 percentage points lower than standard rates [2]. Several banks also issue socially responsible financial products, such as charity-linked deposits (Sberbank, Alfa-Bank) or automated payment services donating to social projects (Yandex) [10].

(iv) ESG in internal banking operations

Banks themselves are adjusting operations to meet ESG standards, including reducing energy use, adopting renewable energy, minimizing paper consumption, and promoting recycling. In the social and governance dimensions, banks are expanding initiatives that foster positive workplace culture, gender equality, inclusiveness, and anti-corruption practices [10].

2. International Experience

2.1. ESG Integration at Citi Bank

Citi Bank (hereafter referred to as "Citi") considers ESG risks an integral part of its risk-management strategy and investment policies. This approach enables the bank to make well-informed decisions, minimize negative environmental and social impacts, and meet the expectations of investors and regulators.

Citi applies stringent ESG standards across all operations, including: environmental and social risk assessment processes for clients and projects; support for customers in transitioning to sustainable business models such as ESG transition advisory, financing for green bond issuance, and funding for renewable-energy projects.

The bank also uses advanced analytical tools to monitor and manage ESG risks, including: transition-risk scenario analysis for a low-carbon economy; participation in initiatives such as the Net-Zero Banking Alliance (NZBA) [11] to achieve net-zero emissions in its own operations.

To ensure transparency and accountability, Citi publishes detailed ESG reports - such as its *Climate Report* - covering: progress toward ESG targets; greenhouse-gas (GHG) emission-reduction trajectories; and engagement with stakeholders on sustainability issues [12]. These measures help Citi mitigate reputational risks, reduce financial losses, and strengthen sustainabledecision-making in investment.

Citi also plans to expand financing for green energy and low-carbon technologies, together with issuing more green and social bonds to support environmentally friendly and inclusive projects. The bank has set a target of allocating USD 1 trillion to sustainable finance by 2030. As of 2024, according to its *Sustainability Report 2024*, Citi has mobilized and facilitated USD 555.8 billion in sustainable finance - surpassing half of its USD 1-trillion target for 2030 [13]. In addition, the bank has completed 5 out of 8 operational-impact reduction goals for 2025, including reducing GHG emissions, increasing the share of renewable energy use, saving water, and reducing waste relative to 2010 levels.

To further enhance transparency, Citi has agreed to disclose its clean-energy financing ratio, shortly after JPMorgan Chase released similar information. To advance its sustainability objectives and strengthen ESG risk assessment, the bank adheres to various international frameworks, such as the Global Investors for Sustainable Development Alliance (GISD) [14]; the Pegasus Guidelines [15]; and the Sustainable STEEL Principles [16].

2.2. ESG Trends in Banking Operations

Experts expect that over the next five years, corporate demand for ESG-related banking products will rise sharply, driven mainly by: increasingly stringent regulatory requirements and higher barriers to accessing international financial markets. It is anticipated that most businesses will need ESG ratings from reputable institutions, in addition to traditional credit ratings and financial indicators [2].

The future of ESG in banking will be shaped by growing global interest in sustainable development, ethical governance, and social responsibility. Banks that proactively adopt ESG practices do so not only to comply with evolving regulatory requirements but also to meet investor and client expectations and to address long-term risks [17].

According to the Global Sustainable Investment Alliance, by the end of 2022, approximately USD 30.3 trillion in assets was managed under sustainable-investment strategies globally [18]. Deutsche Bank forecasts that global ESG investments could exceed USD 100 trillion by 2030. The report highlights steady growth from current levels to the forecasted figure - demonstrating the mainstream and persistent nature of ESG investing [19].

One of the most significant current trends is the commitment to achieving net-zero emissions. Many banks worldwide are pledging strong actions to reduce their carbon footprints. In 2021, under the auspices of the United Nations, the Net-Zero Banking Alliance (NZBA) was established, bringing together more than 140 banks from 44 countries, including major institutions such as Citi, Deutsche Bank AG, HSBC Holdings plc, National Bank of Canada, Sovcombank, UniCredit, and others. All members commit to supporting the goal of net-zero GHG emissions by 2050 through aligning their lending and investment portfolios with climate-aligned pathways. This reflects the global banking sector’s effort to support sustainable-development initiatives, particularly: financing renewable-energy projects and gradually phasing out high-carbon sectors.

According to NZBA reports, since its establishment in April 2021, membership has more than tripled - from 43 to 144 banks. Among the 122 banks required to set sector-specific emissions-reduction targets, 97% have already publicly disclosed their goals [20].

3. Global Challenges in ESG Implementation

Although ESG has become a dominant trend in the finance-banking sector, global implementation still faces several major challenges.

First, the lack of standardized and reliable data. Banks struggle to assess corporate ESG performance due to fragmented, non-standardized, and sometimes non-transparent disclosures. Cross-industry and cross-country comparisons therefore lack accuracy, limiting risk-management effectiveness.

Second, the risk of *greenwashing*. Many corporations and financial institutions publicly announce green commitments, yet implementation remains limited. This phenomenon - mislabeling or overstating sustainability performance - undermines investor trust and hinders the growth of sustainable-finance markets.

Third, the absence of unified global reporting standards. Although international initiatives such as the Task Force on Climate-related Financial Disclosures (TCFD), the International Sustainability Standards Board (ISSB), and the Global Reporting Initiative (GRI) have emerged, the diversity of frameworks results in inconsistent application, particularly for cross-border banking institutions. This increases compliance costs and creates barriers for firms in emerging markets.

Fourth, constraints in technological and governance capacity. Effective ESG management requires large-scale data systems, advanced analytical tools, and highly skilled human resources. Many banks - especially in developing economies - lack the capacity to deploy technologies such as artificial intelligence (AI) or APIs for ESG-data processing.

To address these challenges, international banks have adopted several solutions:

- Developing comprehensive ESG-data management strategies that integrate internal and open-source data.
- Applying digital technologies (AI, APIs, blockchain) to enhance transparency and efficiency in ESG reporting.
- Establishing independent verification mechanisms to increase the credibility of ESG indicators.
- Promoting international cooperation toward harmonized ESG-reporting and assessment standards.

These challenges and solutions are not only globally relevant but also offer important lessons for Vietnam in developing ESG banking.

4. Current Implementation of ESG in Vietnamese Banks

4.1. Policy Framework and Awareness

To achieve socio-economic development goals and fulfill international commitments on greenhouse-gas emissions reduction, on October 1, 2021, the Prime Minister issued Decision No. 1658/QĐ-TTg approving the National Green Growth Strategy for the period 2021-2030, with a vision to 2050. To implement Vietnam's commitments made at the 2021 UN Climate Change Conference, on July 26, 2022, the Prime Minister signed Decision No. 896/QĐ-TTg approving the National Climate Change Strategy to 2050. The strategy aims to achieve net-zero emissions by 2050 and contribute responsibly to global climate protection, while improving growth quality and the competitiveness of the economy.

With Decision No. 21/2025/QĐ-TTg dated July 4, 2025 on "Environmental Criteria and Verification of Investment Projects under the Green Taxonomy," Vietnam, for the first time, introduced a national Green Taxonomy - an important milestone toward establishing an official set of environmental criteria, promoting sustainable development projects, and expanding the green finance market. This regulation identifies 45 categories of projects across seven key sectors and provides a unified framework for classifying and verifying green projects, thereby enabling more transparent and efficient access to green credit and green bond issuance.

On the side of the State Bank of Vietnam (SBV), the Governor issued Directive No. 03/CT-NHNN dated March 24, 2015 on promoting green credit and managing environmental and social risks in credit activities; the Scheme on Green Banking Development in Vietnam (Decision No. 1604/QĐ-NHNN dated August 7, 2018); and the Banking Sector Action Plan for implementing the National Green Growth Strategy for 2021-2030.

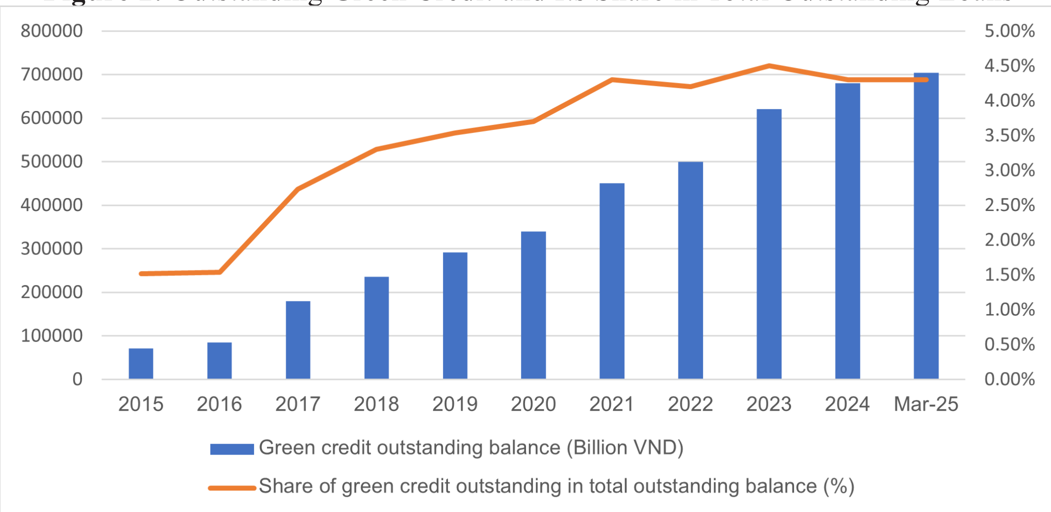
On May 21, 2025, the SBV released the *Environmental and Social Risk Management System (ESMS) Handbook* for credit activities. This handbook, developed in cooperation with the IFC and aligned with international standards, provides guidance for credit institutions to adopt ESG principles in lending and promote sustainable finance objectives [21].

4.2. Green Credit Outstanding Loans

As of the end of March 2025, green credit outstanding loans reached more than VND 704,244 billion, up 3.57% compared to the end of 2024 and accounting for 4.3% of total outstanding loans in the economy. Green credit was mainly concentrated in renewable and clean energy (over 37%) and green agriculture (more than 29%). The average annual growth rate of green credit during 2017-2024 exceeded 21.2%, higher than overall credit growth in the economy [22].

At the same time, assessment of environmental and social risks in lending has made significant progress. By the end of Q1 2025, 57 credit institutions had implemented ESG-related risk assessments, covering a total outstanding loan balance of VND 3.62 quadrillion and nearly 1.3 million loan accounts - an increase of more than 15 times compared to 2017 [21].

Figure 2. Outstanding Green Credit and Its Share in Total Outstanding Loans



Source: [22-23]

4.3. The Green Bond Market and Sustainable Finance

- HDBank successfully issued VND 3 trillion (≈ USD 118 million) in green bonds - becoming the first private bank in Vietnam to do so [24].

- Vietcombank also issued VND 2 trillion (USD 78.7 million) in green bonds to finance projects in renewable energy, green transport, waste management, green construction, and other areas [25].

- From 2021 to 2024, Vietnamese companies issued more than USD 1.4 billion in green, social, and sustainability (GSS) bonds [26].

4.4. Practical Implementation and Level of Commitment

Based on the orientations and regulations set by the Government and the State Bank of Vietnam (SBV), Vietnamese commercial banks have begun integrating ESG criteria into their business operations. According to SBV reports, around 80-90% of banks in Vietnam have adopted ESG practices either partially or fully [27]. However, most banks have not yet achieved significant outcomes; only a few, such as Agribank, BIDV, and HSBC, have notable ESG programs.

BIDV reports that it has implemented ESG and sustainable finance across three dimensions: (i) providing sustainable financial products; (ii) managing environmental and social (E&S) risks in lending activities; and (iii) building a sustainable operating model. In addition, BIDV actively collaborates with international organizations to develop a comprehensive sustainable finance framework, including the Sustainable Loan Framework, Green Bond Framework, Sustainable Bond Framework, ESMS Framework for trade finance operations, and the Sustainable Deposit Framework [22].

Agribank has established an ESG Steering Committee to develop strategies and action plans for applying ESG standards across its system, with a particular focus on promoting green credit and green finance. The bank has prioritized developing green credit products in agriculture, notably through its lending program supporting high-quality, low-emission rice production, processing, and consumption in the Mekong Delta - aligned with the government's initiative to develop one million hectares of high-quality, low-emission rice cultivation linked to green growth in the region by 2030 [22].

HSBC Vietnam has actively supported Vietnam's green transition and sustainable development by simultaneously implementing multiple measures, such as providing green financial products and services and financing green and renewable energy projects. In addition, HSBC Vietnam sponsors numerous forums and participates in global green finance initiatives aimed at reducing carbon emissions and protecting the environment.

5. Policy Implications

First, improving the legal framework and strengthening mandatory regulations

- The legal framework should be further improved to clarify ESG disclosure responsibilities and standardize environmental, social, and governance criteria. Measures may include introducing mandatory ESG disclosure requirements and periodic ESG reporting obligations for banks and large enterprises.

- Implement and refine the national Green Taxonomy in accordance with Decision No. 21/2025/QD-TTg dated July 4, 2025, issued by the Prime Minister on environmental criteria and the verification of investment projects classified as green. Key tasks include: Providing detailed guidance for banks and enterprises on how to apply the taxonomy in credit assessment, bond issuance, and ESG reporting; Ensuring alignment with international standards (such as the EU Taxonomy) to facilitate access to international capital; Establishing independent monitoring and verification mechanisms to mitigate the risk of "greenwashing"; Updating the taxonomy periodically (e.g., every 3 -5 years) to keep pace with technological advancements and evolving standards.

Second, financial incentives and support mechanisms

- Offer tax incentives, subsidize green bond issuance fees, and support certification or framework development costs for pioneering banks.

- Consider preferential lending rates and credit support for enterprises (large firms and SMEs) meeting ESG criteria, especially those in environmental and social sectors.

Third, building data systems, assessment mechanisms, and independent verification

- Establish domestic independent ESG rating or evaluation agencies, or officially recognize qualified international organizations for project certification.

- Develop a transparent and harmonized ESG data system; standardize ESG reporting and impact measurement (carbon, governance, social) to support *informed bank investment decisions.*

Fourth, capacity building and awareness raising

- Provide training for bank staff on ESG, non-financial risk assessment, and integrating ESG into risk management, investment, and credit appraisal.

- Raise awareness among enterprises and customers about ESG, thereby increasing market pressure and encouraging better compliance.

Fifth, promoting a more diversified green finance market

- Encourage ESG financial products for individuals, green credit, green bonds, and sustainability-linked products to broaden domestic and international capital sources.

- Develop legal frameworks and intermediary markets (certification, ESG ratings, environmental insurance) to reduce issuance costs and increase the attractiveness of green financial products.

Sixth, establishing clear roadmaps and transparency

- Define a clear transition roadmap with milestones (e.g., by 2030 and 2040) for each ESG component, requiring banks and enterprises to disclose progress.

- Strengthen enforcement and impose sanctions for violations related to ESG transparency and greenwashing.

Conclusion

The global trend toward sustainability and the transition to net-zero emissions is driving banks worldwide to actively integrate ESG principles, thereby enhancing environmental, social, and governance accountability among borrowing enterprises. ESG metrics play a central role in this process-not only helping banks manage risks more effectively but also strengthening their reputation and public image. ESG is reshaping investment decision-making and risk management strategies across the financial sector.

To adapt effectively, banks must

enhance their ESG data management capabilities by integrating and connecting data from multiple sources within their ecosystems and applying modern technology to improve energy efficiency and operational performance.

In the future, banks will play an increasingly active role in global environmental initiatives due to (i) more stringent ESG reporting requirements; (ii) the growing need to align financial portfolios with sustainability goals, and (iii) rising demand for ESG financial products.

In summary, ESG practices are not only a solution to contemporary challenges but also lay the foundation for a more responsible and sustainable financial system in the future.

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