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The Birth of Sustainable Finance: Historical Insights and Epistemological Underpinnings

El nacimiento de las finanzas sostenibles: perspectivas históricas y fundamentos epistemológicos

Óscar Ugalde Hernández[1]
https://orcid.org/0000-0001-8566-7821

ABSTRACT

This paper examines the epistemic roots and historical milestones that have influenced the evolution of sustainable finance, both as a concept and as a benchmark for best practices in investment decisions. The year 1987 marked a turning point when the Brundtland Report introduced the definition of sustainable development as a paradigm integrating social, economic, and environmental dimensions. Sustainable finance has shifted from fringe practices to mainstream acceptance in an era in which global awareness of ecological issues has significantly increased, with estimates for sustainable finance project-related investment assets to hit between $30 and $50 trillion by 2030 timescale. Through an extensive review of the existing literature, including academic journals, industry reports, and historical publications, this study identifies significant markers on the path to modern sustainable finance. It seeks to explain how past ideas and events have influenced contemporary financial practices and policy and make sense of the ongoing transition to a sustainable financial system.

Keywords: environment; financial practices; investment decisions; sustainable development; sustainable finance

RESUMEN

Este artículo estudia las raíces epistémicas y los hitos históricos que han influenciado la evolución de las finanzas sostenibles, como un concepto y un referente de mejores prácticas en decisiones de inversión. El año 1987 se reconoce como un punto de inflexión cuando el Informe Brundtland presentó la definición de desarrollo sostenible, a modo de un paradigma que integra las dimensiones sociales, económicas y ambientales. Las finanzas sostenibles han pasado de ser meras prácticas marginales a ser una dinámica generalizada en una era en la que la conciencia global sobre los problemas ecológicos ha aumentado significativamente, con estimaciones de que los activos de inversión relacionados con finanzas sostenibles alcancen entre 30 y 50 billones de dólares para el 2030. A través de una revisión

1 Universidad Nacional, Costa Rica. PhD. in Economics and Business Administration. Professor Escuela Relaciones Internacionales, Universidad Nacional. E-mail: oscar.ugalde.hernandez@una.cr

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exhaustiva de la literatura existente, incluidos artículos académicos, informes de la industria y publicaciones históricas, esta investigación identifica hitos relevantes en el camino hacia las finanzas sostenibles modernas. Busca explicar cómo las ideas y eventos del pasado han influido en las prácticas financieras y políticas contemporáneas, así como dar sentido a la transición en curso hacia un sistema financiero sostenible.

Palabras claves: ambiente; desarrollo sostenible; finanzas sostenibles; inversiones; prácticas financieras

1. Introduction

Conceptually, the notion of sustainable finance has a rich and multifaceted history, closely intertwined with a dynamic range of systems and frameworks that shape economic development and promote more sustainable use of natural capital. Its roots can be traced back as far as biblical times, but its main consolidation as a concept emerged during the 1970s environmental movements. These movements reflected a heightened global awareness of ecological issues and analyses of responsible investing. One of the most critical turning points was the publication of the Brundtland Report in 1987, which introduced sustainable development as a paradigm integrating social, economic, and environmental dimensions. These pillars would later evolve into today's sustainable finance, defined by the European Commission as "the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions" (European Commission, n.d.). The global ESG assets were forecast to be between \$30 and \$40 trillion by 2025 and are expected to grow between \$35 and \$50 trillion by 2030 (Parrish, 2024).

In this pursuit, the following question will be addressed: In what ways have epistemic origins and historical events influenced the development of the concept of sustainable finance, and what consequences do these origins have for current practices?

To address this question, the analysis identifies key historical milestones that ultimately led to our current understanding of sustainable finance. This allows for an assessment of both the historical development and the conceptual foundations that guide contemporary sustainable finance. Social Constructivism (Berger & Luckmann, 1966) serves as the theoretical lens through which this concept of sustainable finance is examined. This theory posits that knowledge and ideas are not independent of human beings but are constructed, maintained, and transformed through social processes and interactions.

This paper conducts a comprehensive qualitative narrative literature review that includes academic journals, industry reports, and historical articles related to sustainable finance. This review provides context by examining historical developments and synthesizing various perspectives and insights from different studies. As such, it enables a critical analysis (Green, B., Johnson, C., & Adams, A., 2006) of the ways sustainable finance has evolved as a concept and how these ideas have been incorporated into practices. This literature review tracks prominent academic publications in the fields of economics, environmental science, and policy studies.

2. Early Beginnings of Sustainable Finance Conceptualization from Biblical Times up to the 19th Century: Linkages to Ethically and Socially Responsible Investing.

The early beginnings of sustainable finance can be traced back to the Hebrew Bible, more than 2,000 years ago. (Ciocchetti, 2008, pp. 1976). Based on its teachings on ethics, justice, and honesty, sustainable finance principles shed a glimmer of light. One example can be found in Proverbs 1:11, which declares: "The Lord detests dishonest scales, but accurate weights find favor with him" (Holy Bible, New International Version, 2011).

In the Middle Ages, Catholicism enforced the application of ethical canons regarding investment and credit, and it was particularly opposed to usury. For instance, "the taking of interest by clerics was prohibited after the First Council of Nicaea" (Koenigsmarck & Geissdoerfer, 2023, p. 4), and the Third Council of the Lateran prohibited usury (Renneboog, L., ter Horst, J.; Zhang, C., 2008). Although forbidden, usury (i.e., charging any form of interest) was still practiced, but with punishments such as excommunication and even the suspension of clerics who dared to bury a usurer (Lewison, 1999).

Throughout the 16th and 18th centuries, the influence of faith-based traditions continued to lay the groundwork for sustainable finance. Both the Religious Society of Friends (known as Quakers), with their beliefs in equity, peace and ethical practices, and the Methodist communities (Koenigsmarck & Geissdoerfer, M., 2023), inspired by John Wesley's ideas on social screening and his instruction that stated, "Gain all you can by honest industry" (Wesley, n.d., Sermon L: The Use of Money, para. 5) promoted refraining from investments in the slave trade, tobacco, alcohol, and weapons' industries.

The principles of sustainable finance, which are present in investment decisions today as ESG factors, were strongly shaped by the values and beliefs originating in religious and ethical frameworks that emerged between the 16th and 19th centuries. These principles emphasize the avoidance of harmful investments in so-called “sin” industries and the promotion of social good, and they have also laid the groundwork for the emergence of socially responsible investments (SRI).

During the 19th century, philanthropic movements began to proliferate among affluent magnates in the United States (U.S.) (Zuns, 2014). Top of Form Andrew Carnegie and John D. Rockefeller are two of the most prominent figures in the history of American philanthropy. Both were “investing large sums in new philanthropic foundations and endowments to foster social progress in which they believed” (Zuns, 2014, p. 1). However, philanthropy was not exclusively to the very wealthy; members of the middle and working classes also contributed to social good through the establishment of “community chests, community foundations, and national health organizations” (Zuns, 2014, p. 2). These movements gained considerable momentum in the early and mid-20th century.

The 19th century also witnessed a significant wave of industrialization in the United States, which gave rise to pressing issues related to working conditions, labor rights, and environmental impacts. This provided fertile ground for the rise of labor unions and the earliest environmental movements (Anna Maria College, 2025). Generally, advocacy for labor rights, especially the demand for better wages, was linked to the pursuit of improved working conditions characterized by humane, safe, and less polluted environments.

One of the two most influential events that galvanized labor union activism was the brutal confrontation between the Frick Company and the steelworkers during the Homestead Strike in 1892 (Burgoyne, 1979). In that conflict, the company’s manager, Henry Clay Frick, sought “to crush the workers by main force” (Burgoyne, 1979, p. 9). Another pivotal moment was the Triangle Shirtwaist Factory fire in 1911, a tragedy that exposed the deplorable working conditions prevailing in many factories in New York City at the time. “Shops like this one were known as sweatshops, as much for their hot, airless conditions as for the amount of hard work put in there” (Lange, 2008, p. 8). Such events propelled the creation of labor laws and regulations aimed at promoting social justice and improving labor relations.

Labor union activism was also intertwined with the anti-industrial pollution movement. As the industrialization process accelerated in Britain and the United States during the mid- and late 19th century, the widespread use of coal contributed to severe air pollution in industrial centers and cities. This increased the pressure for the enactment of new environmental legislation, such as the

Alkali Acts of 1863 in England, which aimed to reduce sulfur dioxide emissions from factories (Portillo, 2024).

Table 1. Influential Publications Related to the Concept of Sustainable Finance up to the 19th Century

Author	Reference Title and Year	Relevant Content
Ciocchetti	*Encyclopedia of Business Ethics and Society*, Vol 1 (2007)	Traces the origins of sustainable finance back more than two thousand years.
Koenigsmarck and Geissdoerfer	*Shifting the Focus to Measurement: A Review of Socially Responsible Investing and Sustainability Indicators* (2023)	Describes how, during the Middle Ages, Catholicism enforced ethical principles concerning investment and credit.
Wesley, J.	*The Use of Money* (1872)	Advocated for social screening by discouraging investment in the slave trade, tobacco, alcohol, and weapons industries.
Zuns	*Philanthropy in America: A History* (2014)	Documents the emergence of charitable movements in the United States during the 19th century.
Anna Maria College	*The Role of Collective Bargaining in the History of the U.S. Labor Movement* (2025)	Analyzes how 19th-century industrialization in the United States led to the emergence of labor unions and environmental movements.
Burgoyne	*The Homestead Strike of 1892* (1979)	Describe the violent conflict between the Frick Company and the steelworkers during Homestead Strike of 1892.
Lange	*The Triangle Shirtwaist Factory Fire* (2008)	Highlights the poor labor conditions in New York City in the early 20th century.
Portillo	*The First Laws to Protect Workers from Air Pollution* (2024)	Describes how industrial pollution in 19th-century England led to the enactment of environmental laws such as the Alkali Acts of 1863.

Source: Author's own elaboration.

3. Contextualization of Sustainable Finance through Its Roots in the First Half of the 20th Century: Breeding Ground for Sustainable Development, Moral Investing, and Corporate Social Responsibility.

Drawing on the ethical and theoretical advances of the 19th century, Sustainable Finance continued its evolution throughout the first half of the 20th century. Several environmental and social movements significantly contributed to increasing advocacy and awareness in these domains. In terms of environmental awareness, several pivotal developments took place later that propelled the formation of more robust movements in the second half of the 20th century.

In the first half of the 20th century, a convergence of conservation efforts, scientific advancements, and reactions to environmental damage laid the foundations for a robust environmental movement later in the century. McNeill (2000) notes, "In environmental history, the 20th century qualifies as a peculiar century because of the screeching acceleration of so many processes that bring ecological change." Key milestones included the creation of national parks and protected areas, primarily under President Theodore Roosevelt's administration (National Park Service, 2023), the preservation and protection of endangered species, such as migratory birds, and the foundation of conservation organizations, like the Audubon Society in 1905 (National Audubon Society, 2023).

Another relevant concern during the first half of the 20th century was that urbanization and industrialization continued to cause air and water pollution in important urban areas such as London. A significant consequence of these social and economic phenomena was the notorious Great Smog of London in 1952 (Britannica, n.d.). Additionally, the Dust Bowl of the 1930s in the southern-central United States prompted the establishment of the Soil Conservation Service in 1935 to combat extreme drought and dust storms (University of Nebraska, 2025). Groundbreaking scientific advances played a major role in enhancing ecological awareness during the first half of the 20th century, including the introduction and popularization of the ecosystem concept and the publication of seminal papers on ecology by Sir Arthur Tansley. (Tansley, 1935). Another influential writer of this period was Aldo Leopold, whose *A Sand County Almanac* (1949) appealed for moral responsibility toward the environment.

Although the concept of sustainable development did not emerge until the second half of the 20th century, scholars such as Alfred Wagner had already adopted a holistic approach to ecology by considering the geological processes and human influence on ecosystems (Faber, M., Jôst, F., & Manstetten, R., 1995). He emphasized the importance of considering the interlinkages between human activity and environmental health. In this way, it would be possible to implement effective conservation strategies and promote sustainable practices. (Wagner, 1912).

Other critical developments during the first half of the 20th century laid the groundwork for sustainable development fundamentals. Among these were the foundation and establishment of organizations such as the Ecological Society of America in 1915, whose objectives included conservation, which marked the initial efforts to address environmental issues and served to increase advocacy in relation to the environment (Branwell, 1989). The creation of the International Union for Conservation of Nature in 1948 set in motion "best practices and approaches that enable effective conservation" (UNEP, 2025, para. 6).

The 1940s and 1950s constituted a critical formative period for the concept of Sustainable Finance, driven by the aftermath of World War II and changing society. Investors took a 360-degree view of the problem, considering not only profit but also the social and environmental impact of their decisions.

Religious movements and socially responsible investors considered certain industries, such as gambling and tobacco, harmful to society or the environment. A historical and prominent example of this is the Pioneer Fund, founded in 1928, which applied principles of social responsibility to investment practices for the first time in 1950 (Ziolo, 2020).

The 20th century witnessed significant advancements in social and environmental awareness and activism. These developments established a foundation for the more dynamic movements that emerged in the latter half of the 20th century.

Table 2: Influential Publications in the First Half of the 20th Century Related to the Concept of Sustainable Finance

Author	Reference Title	Relevant Content
National Audubon Society	*The History of Audubon and Bird Conservation* (2023)	Describes the preservation and protection of endangered species, such as migratory birds
McNeill	*Something New Under the Sun: An Environmental History of the Twentieth-Century World* (2000)	Highlights the screeching acceleration of multiple processes that drove ecological change throughout the 20th century
Tansley	*The Use and Abuse of Vegetational Concepts and Terms* (1935)	Introduces the ecosystem concept
Leopold	*A Sand County Almanac* (1949).	Appeals for moral responsibility toward the natural environment.
Faber, M., Jôst, F., & Manstetten, R	*Limits and Perspectives of The Concept of Sustainable Development* (1995)	Applies a holistic approach to ecology by considering geological processes and human influence on ecosystems.
Wagner	*The Concept of Continental Drift* (1912)	Manifests the interlinkages between human activity and environmental health.
Branwell	Ecology in the 20th Century: A History (1989)	Documents the establishment of organizations such as the Ecological Society of America in 1915, whose objectives included conservation, which marked the initial efforts to address environmental issues and served to increase advocacy in relation to the environment.
Ziolo	Philanthropy in America: A History (2020)	Refers to the Pioneer Fund, which applied principles of social responsibility to investment practices for the first time in 1950.

Source: Author's own elaboration.

4. Epistemological and Historical Developments During the Second Half of the 20th Century: The Conceptual Consolidation of Sustainable Finance

Considering the substantial epistemological and historical advancements regarding sustainable finance during the first half of the 20th century, the 1950s did start raising awareness about green issues, alongside the emergence of the concept of Corporate Social Responsibility (CSR). The global economy experienced rapid growth in the post-World War II period, as did energy needs. According to Pfister (2010), "the drop in prices of fossil fuels since the 1950s, relative to the costs of labor and capital, has been the underlying contributor for this inefficient utilization of raw materials and energy and the ensuing serious environmental pressure" (p.92). In addition to these problems, increasing concern arose over air and water pollution stemming from industrial expansion, as well as the use of pesticides like DDT in farming, which was initially applied in Canada for pest control (Clement, 1965). These issues gave rise to the first discussions on the ecological impact of economic measures.

An increasingly pressing concern, brought to light by the renowned writer Fairfield Osborn in his bestselling book *Our Plundered Planet* in 1948, was the depletion of the Earth's natural wealth and the implications of triggering an environmental catastrophe. However, in the context of the CSR debates during the 1950s, Howard Bowen proposed the social responsibilities of business in his influential book on this concept, *Social Responsibilities of the Businessman* (1953). He defines the "social responsibilities of a businessman" as "the obligations of businessmen to pursue those policies, to make those choices, or to follow those lines of action" that are favorable in view of the "goals and values of our society" (p 6). Bowen asserted that the corporate sector must now focus not solely on profit generation but also on the incorporation of social, ethical, and environmental issues into the business decision-making process.

Thanks to Bowen's contributions and the first documented case of CSR practices by the Cadbury chocolate company's establishment of Bournville village in 1893 (Harrison, 1999), societal interests began to be taken into consideration by business decision-makers from that point onward. While these initiatives might be viewed as early seeds of concern in the 1950s, sustainable finance only began to take shape in subsequent decades of the 20th century.

Beginning in the 1960s, actors started operating within this paradigm, as new epistemological and historical developments emerged, laying the ground for the eventual rise of sustainable finance in alignment with the environmental movement. A significant event in this trajectory was the publication of Rachel Carson's *Silent Spring* (1962). Her work contributed to raising global public awareness regarding pesticides and other chemicals used in agriculture and their ecological implications. Carson wrote, "In this now universal contamination of the environment, chemicals are the sinister and little-recognized partners of radiation in changing the very nature of the world – the very nature of its life" (p. 6). She conveyed a pivotal message in her publication, illustrating how the phenomenon of "silent springs" is the consequence of bird mortality resulting from poisoning within ecosystems. Such an increase in public awareness sparked the creation of environmental legislation on the use of pesticides and led to the creation of the U.S. Environmental Protection Agency (EPA) in 1970 (Barnes, Graham, & Konisky, 2021). Thanks to the scientific and public debate that it generated, *Silent Spring* (1962) ignited the emergence of environmental movement organizations: "Friends of the Earth and Greenpeace trace their origins directly to *Silent Spring*" (McKie, R., 2012). The book fostered increasing awareness of the relationship between human activity and the environment and critically challenged the dominant economic model that prioritized short-term growth while neglecting long-term ecological impacts.

During the 1960s, faith-related contributions to the development of the concept and foundations of sustainable finance experienced a decline. The use of napalm in the Vietnam War and the rising death toll generated a powerful protest movement led primarily by students and young people in the United States. This movement focused on condemning the production of napalm by Dow Chemical Company, which supplied weapons to the U.S. military (PBS, 2025, paragraph 1), and warned investors against purchasing shares in this and other weapons-producing companies. Along with this anti-war movement in the 1960s, other proposals, such as those advocating for civil rights and democratic participation (Martini, 2021, p. 16881), also served as catalysts for change in the mindset of institutional investors during this period, contributing to a and shift away from the influence of faith-related groups.

During the 1960s and the 1970s, there were also other movements that constituted historical milestones in the development of the concept of sustainable finance. The Apartheid regime in South Africa propelled anti-apartheid student protests on university campuses across the United States (Harvard University, 2025). Disinvestment from South Africa was first advocated in November 1962 by the United Nations General Assembly (resolution 1761), which called for the imposition of economic sanctions against the South African regime. However, it was not until the mid-1980s that the call gained momentum, culminating in 1986 in the adoption of a formal disinvestment policy by the U.S. government

(Edgar, 1990). This factor significantly contributed to the increase of capital flight from South Africa, mainly by U.S. and British multinational corporations. It also inspired the formulation of the Sullivan principles by Leon Sullivan in 1977. These principles made a significant contribution to the development of CSR as a code of conduct for multinational corporations and were widely adopted in the U.S. and then worldwide (Prakash Sethi & Williams, 2000).

Due to the convergence stemming from the rise of the anti-war and environmental movements, along with the heightened promotion of CSR that began in the 1960s, the 1970s witnessed a significant advancement in the development of sustainable finance. This decade was pivotal in forming the core doctrines that would subsequently shape sustainable finance. Indeed, this decade began with a milestone: the First Earth Day, observed in 1970 (Hunt, n.d.). In January 1969, an offshore oil well near Santa Barbara, California, malfunctioned, resulting in the worst oil spill in United States history (Easton, 1972). This incident catalyzed the mobilization of a wide array of governmental and non-governmental groups, along with university students, to organize nationwide demonstrations on April 22, 1970. On that date, twenty million people gathered across the United States to express their concern; they argued that it was time to make the environment the top national priority.

The momentum from the First Earth Day, alongside the environmental awareness that *Silent Spring* by Carson (1962) had generated, catalyzed the creation of the EPA in the United States to provide this institution with enough power to regulate pollution in this nation. Additionally, the Clean Air Act was amended, as Hunt (n.d.) states, "with a stronger regulation of ambient air quality." The Earth Day movement expanded to a global scale, and the first Global Earth Day was held in 1990 with the generous participation of 140 countries (Hunt, n.d.). One of the key lessons learned from the First Earth Day is that individual actions can collectively exert influence on national policies.

The convergence of environmental and social movements—such as anti-war and anti-apartheid activism, the rise of CSR, and the influence of faith-based organizations on investment decisions—culminated in the creation of Pax World Funds in 1971 by Luther Tyson and Jack Corbett (Green Money Journal, 2024) This marked the lunch of the first ethical and sustainable mutual investment fund, specifically designed for investors seeking to divest from companies associated with the Vietnam War (Gittel, R., Magnusson, M., Merenda, M. 2012), thereby pioneering the integration of social and environmental criteria into investment strategies and contributing significantly to the evolution of sustainable finance.

Global environmental problems first came into public attention in the 1960s and 1970s, when a group of scientists, researchers, and politicians from over thirty countries formed the Club of Rome (Acciona Business as Unusual, 2019, par. 3). The group's most influential achievement was the publication of the now-famous *Limits to Growth* report, commonly referred to as the *Meadows Report*. The report addressed the projected unchecked population growth on Earth's finite resources. Even more striking were the insights and conclusions the report ultimately offered. The *Meadows Report* (Meadows, B., Meadows, R., Randers, J., & Behrens III, W., 1972) sparked increased awareness of environmentally sustainable practices by emphasizing the need for a societal shift in cultural values due to the already present excessive overconsumption and long-standing environmental deterioration.

The alarming forecasts presented in the *Meadows Report* and its calls for sustainable development echoed globally and helped propel a rising environmental movement. To address these growing concerns, Sweden proposed holding an international conference on environmental issues, which was brought before the United Nations in 1968. The Meadows Report, by emphasizing the urgent need for global efforts on environmental matters, played a significant role in this proposal. It was ultimately held in Stockholm in 1972.

The United Nations Conference on the Human Environment, held in Stockholm, was pivotal in advocating policies that consider environmental consequences as integral to economic planning. Its legacy persists today, as it sparked for the first time the importance of focusing on solving global environmental issues and laid the foundation for future environmental governance (Chasek, 2022, p. 1).

During this conference, the United Nations Environment Programme (UNEP) was established. As such, UNEP has become one of the great forces shaping global environmental policy since its creation. The organization plays a vital role in providing coherent frameworks and mechanisms that enable countries to work together on sustainable solutions to contemporary environmental issues (Chasek, 2022, p. 2). The early 1980s marked a turning point in the decades-long effort to integrate sustainability into financial systems. This period, marked by deep changes in both social norms and economic paradigms, set in motion a transformative process that continues to shape modern finance. The 1980s witnessed a paradigm shift in the development of the concept of sustainable finance, as the notion of CSR began to be actively incorporated into corporate agendas.

During this decade, companies integrated social and environmental aspects into their operational framework on a proactive basis. This evolution reflected a growing recognition of the need for ethical conduct within the corporate sector. This emerging awareness gave rise to SRI funds, which aimed to allocate capital toward companies implementing ESG practices. Investors became increasingly selective in their capital allocation, demanding that corporate behavior align with wider societal values. (Liu, 2020a).

Simultaneously, influential divestment campaigns emerged, most notably aimed at corporations engaged in operations within apartheid-era South Africa. These movements not only swayed public opinion but also prompted actionable responses from investors who were unwilling to support companies perceived as complicit in perpetuating injustice (Brown University, 1986). Consequently, SRI principles became integrated into mainstream investment strategies, reinforcing the call for transparency and moral accountability in business conduct.

International initiatives also catalyzed discussions on sustainable finance. A major player in this conversation was the United Nations' Brundtland Commission, established in 1983, responsible for bringing the issue of sustainable development to the international level. The landmark report *Our Common Future* (World Commission on Environment and Development, 1987), the Commission's seminal report, propelled the notion of sustainable development by advocating for a harmonious balance between economic progress and environmental stewardship. The concepts proposed in the Brundtland Report have established themselves as a backbone from which sustainable finance has evolved. This landmark document outlines an approach that addresses current urgent needs and ensures the capacity for future generations to meet their own demands. Consequently, sustainable finance has become an integral part of development strategies.

Looking toward the future, the convergence of these trajectories points towards sustainable finance as a key theme for corporations and investors going forward. This new paradigm not only facilitates global adaptations but also supports the diversification of economic structures.

As the 1990s began to shift the discourse towards significant development, the foundation established by the Brundtland Commission impacted numerous efforts to integrate sustainability into financial practices, paving the way for a transformation in how corporations and investors understand their duties to society and the environment.

The UNEP Finance Initiative was launched in 1991 as a partnership "that brings together a large network of banks, insurers, and investors that catalyzes action across the financial system to deliver more sustainable global economies" (UNEP, n.d., par. 1). Its primary objective has been to "support them [banks and insurance companies] in implementing the frameworks for the sector and developing concrete guidance and tools to position their businesses for the transition to a sustainable and inclusive economy" (UNEP, n.d., para. 2). In 1994, it hosted its first annual roundtable on "greening the financial markets" in Switzerland. (UNEP Finance Initiative, 2017).

This decade was a critical one as SRI really took off with broader exposure and integration of ESG factors into investment decisions. Simultaneously, the need to identify metrics and indexes stepped up. The Domini 400 Social Index, for example, became the first capitalization-weighted index to evaluate sustainable investment (Liu, 2020b). The index was meant to track the performance of U.S. publicly traded companies that met specific social and environmental criteria.

The 1990s witnessed important developments in tools and approaches to measure the impacts of sustainable finance. The growing anxieties of this period led to the necessity for producing universally accepted systems to assess ESG metrics, setting the stage for the launch of the Global Reporting Initiative (GRI). Since 1997, GRI has provided a detailed framework for corporate sustainability disclosures, enabling investors to build portfolios that foster ethical and sustainable objectives (GRI, 2020).

Table 3: Influential Publications in the Second Half of the 20th Century Related to the Concept of Sustainable Finance

Author	Reference Title	Relevant Content
Clement	*Pesticides and the Living Landscape* (1965)	Raises concern over air and water pollution resulting from industrial expansion and the use of pesticides like DDT in farming, as initially used in Canada to control pests
Osborn	*Our Plundered Planet* (1948)	Highlights the depletion of Earth's natural wealth and warns of the risk of environmental catastrophe

Author	Reference Title	Relevant Content
Bowen	*Social Responsibilities of the Businessman* (1953)	Defines "social responsibilities of a businessman" as "the obligations of businessmen to pursue those policies, to make those choices, or to follow those lines of action" that are favorable in view of the "goals and values of our society" (p. 6).
Harrison	*Bournville, Birmingham: model village to garden suburd* (1999)	Documents on the first case of CSR practices by the Cadbury Chocolate Company with Bournville village
Carlson	*Silent Spring* (1962)	Raises global public awareness regarding pesticides and other chemicals used in agriculture and their ecological implications.
Barnes, Graham, & Konisky.	*Fifty Years at the U.S. Environmental Protection Agency* (2021)	Describes the creation of environmental legislation on the use of pesticides and how this led to the establishment of the Environmental Protection Agency in 1970.
Martini	*Socially responsible investing: from the ethical origins to the sustainable development framework of the European Union* (2021)	Explain how civil rights and democratic participation served as catalysts for change in the mindset of the institutional investors.
Edgar	*Sanctioning Apartheid* (1990)	Describes the U.S. government's 1986 disinvestment policy in South Africa.
Prakash Sethi and Williams, 2000	*Creating and Implementing Global Codes of Conduct: An Assessment of the Sullivan Principles as a Role Model for Developing International Codes of Conduct— Lessons Learned and Unlearned* (2000)	Describes the 1977 initiative by Leon Sullivan, which contributed strongly to the development of CSR as a code of conduct for multinational companies.

Author	Reference Title	Relevant Content
Easton, 1972	*Black Tide: The Santa Barbara Oil Spill and Its Consequences* (1972)	Analyzes the January 1969 offshore oil well near Santa Barbara, California, the worst oil spill in United States history.
Gittel, R., Magnusson, M., Merenda, M.	*The Sustainable Business Case Book* (2012).	Chronicles the 1971 creation of Pax World Funds by Luther Tyson and Jack Corbett (GreenMoney Journal, 2024), the first ethical and sustainable investment mutual fund for investors seeking to divest from companies associated with the Vietnam War.
Meadows, B., Meadows, R., Randers, J. Behrens III, W.	*The limits to growth: a report of the Club of Rome's projections on the predicament of mankind* (1972)	Predicts how unrestrained population growth could deplete Earth's finite resources.
Chasek	The legacies of the Stockholm Conference. Policy Brief #40	Highlights the pivotal role of the United Nations Conference on the Human Environment in Stockholm in advocating policies that integrate environmental consequences into economic planning.
World Commission on Environment and Development	Our Common Future (1987)	Propels the notion of sustainable development by advocating a harmonious balance between economic progress and environmental stewardship.
Liu	ESG Investing Comes of Age (2020)	Shows how investors became increasingly selective in their capital allocation, demanding that corporate behavior align with wider societal values.
Liu	The history of sustainable investing (2020)	Describes the Domini 400 Social Index as the first capitalization-weighted index for assessing sustainable investment.

Source: Author's own elaboration.

5. 21st Century: A Golden Opportunity for the Integration of the Concept of Sustainable Finance into Sustainability Frameworks and Initiatives

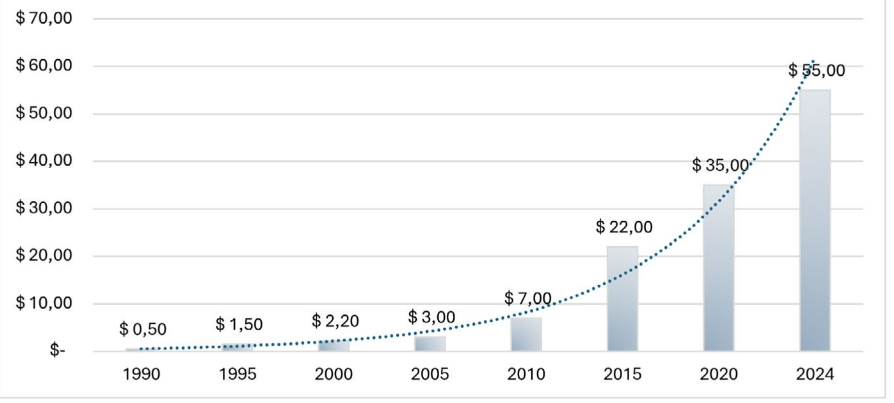
The epistemological evolution of sustainable finance has continued to be enriched in the 21st century by the input from the academia as well as by landmark global events.

Migliorelli (2021) offers one of the most pragmatic definitions of sustainable finance, which incorporates both the frameworks and policy making developed in this century as tools to support the global economy in its effort to achieve sustainability. He defines sustainable finance as “finance to support sectors or activities that contribute to the achievement of, or the improvement in, at least of the relevant sustainability dimensions” (p. 2). This approach marks a shift towards operationalizing sustainability in financial decisions, aligning global economic mechanisms with long-term environmental and social goals.

In this context, Conte (2022) and Zairis, Liargovas, Apostolopoulos (2024) examine how sustainable finance is evolving as a concept, placing greater emphasis on standardizing ESG reporting and measurements. They also address an increase in public-private sector cooperation to direct funding toward sustainable initiatives, and highlight the growing use of social bonds, green bonds, and other innovative financial instruments designed to support sustainability initiatives.

Other relevant global initiatives have significantly contributed to the robustness of the underpinning of sustainable finance. The Kyoto Protocol, adopted in 1997 and entered into force in 2005, positioned climate change as a central economic and political issue. The Protocol also had a direct impact on financial markets through mechanisms such as carbon credits and emissions trading systems, thereby incorporating sustainability factors into investment decision-making processes (United Nations Framework Convention on Climate Change -UNFCCC, 1997). Thus, during the early 2000s, green finance emerged with innovative investment products including green bonds and impact funds. The European Investment Bank issued its first green bond in 2007, showing that it was possible to find a tradeoff between green returns and financial returns. The so-called green bonds subsequently experienced rapid growth and became a mainstay of sustainable finance (Climate Bonds Initiative, 2021). Figure 1 illustrates the exponential growth that global sustainable finance markets have experienced since the 1990s:

Figure 1: Estimated Global Sustainable Finance Market (in Trillions of US dollars)



Note. Sources of data:
1990: Eurosif. (2002)
1995: United Nations Environment Programme Finance Initiative. (1999)
2000, 2005, 2010, 2015: Global Sustainable Investment Alliance. (2012)
2020: UN Principles for Responsible Investment. (2020)
2024: The Economist Intelligence Unit (EIU). (2021)

The extensive expansion of sustainable finance across society was supported by the introduction of the United Nations Principles for Responsible Reporting (PRI) in 2006. The PRI—an optional framework for ESG inclusion among institutional investors, helping them integrate ESG factors in their portfolios—sought to embed sustainability throughout the global financial system (United Nations Principles for Responsible Reporting, 2020).

In the 2010s, there were unique challenges and opportunities for finance, driven by factors such as climate change, social inequality, and resource scarcity. The Paris Agreement (UNFCCC, 2015) highlighted the need for a transformation of the economy to shift its core trajectory towards limiting greenhouse gas emissions (UNFCCC, 2015). In that same year, however, the Sustainable Development Goals (SDGs) were also adopted, which provide a comprehensive system to align financial systems with global sustainability priorities (United Nations, 2015). Sustainable finance has since become one of the cornerstones of the global economy, embedded in the DNA of businesses, governments, and financial institutions.

Table 4. Influential Publications of the 21st Century Related to the Sustainable Finance Concept

Author	Reference Title	Relevant Content
Migliorelli	*What do we mean by Sustainable Finance? Assessing Existing Frameworks and Policy and Policy Risks* (2022)	Defines sustainable finance: "finance to support sectors or activities that contribute to the achievement of, or the improvement in, at least one of the relevant sustainability dimensions" (p. 2).
Conte	*Sustainable Finance: Limitations and Evolutionary Profile [La finanza sostenibile: limiti e profili evolutivi]* (2022)	Explores the evolving concept of sustainable finance, emphasizing standardizing ESG reporting and measurements.
UNFCCC	*Kyoto Protocol to the United Nations Framework Convention on Climate Change* (1997)	Had a direct impact on financial markets by introducing mechanisms such as carbon credits and emissions trading systems, incorporating sustainability factors into the investment decision-making processes.
UNFCCC	*The Paris Agreement* (2015)	Highlights the need for a transformation of the economy to shift its core trajectory towards limiting greenhouse gas emissions.
United Nations.	*Transforming Our World: The 2030 Agenda for Sustainable Development* (2015)	Provides a comprehensive system to align financial systems with global sustainability priorities.

Source: Author's own elaboration

6. Conclusion

Sustainable finance is greatly influencing the functioning of global financial systems, as major investors are progressively acknowledging the significance of ESG factors when making investment choices. This paper has explored the intellectual underpinnings and historical trajectories that have contributed to this transformation, examining a variety of vectors and multifaceted perspectives shaped by thinkers, historical milestones, and societal viewpoints.

This article formulates a theoretical argument that definitions of sustainable finance are socially constructed and emerge in response to evolving social and historical circumstances as well as institutional pressures. Thus, social constructivism demonstrates that sustainable finance entails more than merely a technical advancement; it also stems from evolving worldviews and historical, cultural, and power-related intersubjective agreements.

One of the key insights that emerged from this study concerns the evolution of sustainable finance from the periphery to becoming a core pillar of finance, financial practice, and policy. This shift is rooted in an expanding awareness of how deeply our economic activity relies on the larger social and environmental systems in which it is embedded. By embracing the epistemological and historical evolution of sustainable finance conceptualization, financial actors paint a more holistic picture of value in their decisions—one that incorporates not only near-term rewards but also long-term outcomes for people and the planet.

The historical evolution of sustainable finance shows that intellectual innovation and international discussion, even at higher levels, catalyze the chemistry of change. Over time, sustainability in finance has become more holistic in its mandate, with frameworks around accountability and transparency in addition to ethical responsibility in place.

Ultimately, this research shows that sustainable finance is not an ad hoc response to contemporary pressures. It is a necessary evolution of the financial system itself. It will only be able to live on in the future to the extent that we keep setting financial goals in alignment with principles of sustainability, equity, and global well-being.

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