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Macro Stewardship: A Transformative Approach in Sustainable Finance for Achieving Sustainability

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Abstract: This conceptual paper introduces Macro Stewardship (Ma-S) as a transformative approach in sustainable finance to challenge financial market failures that contribute to systemic collective action issues such as climate change, biodiversity loss, and inequality. It argues that traditional Environmental, Social, and Governance (ESG) strategies focus on individual corporate actions and often fail to drive systemic change. Ma-S, on the other hand, leverages the power of financial institutions to engage governments, policymakers, and stakeholders in addressing market failures tied to sustainability. Unlike Micro Stewardship (Mi-S) or ESG approach, which centers on corporate-level engagement, Ma-S promotes collaborative interventions to align the interests of businesses, governments, and society. This approach aims to influence regulatory changes, shape public policy, and support the United Nations Sustainable Development Goals (SDGs). The paper is guided by the research question: How can Macro Stewardship by financial institutions serve as a transformative approach in sustainable finance to achieve systemic change? It proposes a definition for Ma-S, outlines its practical applications, identifies implementation challenges, and presents a research agenda to evaluate its effectiveness and impact. In doing so, the paper lays a foundation for future empirical studies and calls for a shift in how financial systems contribute to global sustainability.



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1. Introduction

Our society is faced with systemic problems such as climate change, biodiversity loss, resource depletion, health impacts, and inequality that could eventually lead us to the collapse of society as we know it [1]. These issues are interconnected and require urgent, collective action. Despite efforts in the financial sector through Environmental, Social, and Governance (ESG) investments, where investors assess a company's environmental impact, social responsibility, and governance practices alongside financial performance, and through individual corporate engagements, where investors actively work with companies to influence and improve ESG practices through shareholder meetings and governance, these approaches—referred in this paper as Micro Stewardship (Mi-S)—have failed to resolve the issues, and the problems persist and even worsen. Mi-S has not been effective in driving sustainability. Individual actions alone are not enough to achieve sustainable outcomes. Instead, this paper proposes that Macro Stewardship (Ma-S) is a critical tool for achieving sustainability.

Addressing collective action problems requires collective solutions and cannot be solved through voluntary or individual actions. Without a coordinated approach, progress remains inconsistent.

Ma-S in the financial sector involves financial institutions working with governments, policymakers, NGOs, academics, and other key stakeholders to address market failures that stall sustainability. Market failure in sustainability happens when the market doesn't reflect the true costs of environmental or social harm, such as climate change, pollution, or nature loss. This can result from externalities, public goods, information asymmetry, and a short-term focus on profits [2,3]. As a result, businesses and individuals may make decisions that harm the environment and society, undermining long-term sustainability. Through Ma-S, financial institutions can advocate for policies and frameworks that align market incentives with sustainability goals, such as carbon pricing or sustainable investment practices, ultimately correcting these market failures.

Ultimately, Ma-S aligns the financial sector with broader sustainability objectives, ensuring a more resilient and equitable global economy. By engaging with policymakers and industry leaders, financial institutions can influence regulations and encourage business practices that contribute to achieving the United Nations Sustainable Development Goals (SDGs), such as promoting clean energy and social inclusion. This collaboration across sectors helps ensure that economic growth is balanced with environmental and social responsibility.

Furthermore, Ma-S fosters systemic change by encouraging the financial sector to address sustainability-related risks, such as climate change and resource depletion, that threaten long-term stability. By working together with other stakeholders, financial institutions can help create the regulatory environment and financial systems needed to drive sustainable development, supporting projects that may not yield immediate financial returns but are essential for a sustainable future.

One of the key issues is that the financial sector itself is faced with certain market failures and systemic problems [4]. These include the underpricing of environmental risks, the focus on short-term returns, free markets, deregulation, and the exclusion of costs from externalities like pollution and inequality in financial decisions.

The "tragedy of the horizon", articulated by Carney et al. (2015), underscores the issue of misaligned incentives: long-term climate risks are largely ignored in financial decisions due to current short-term performance metrics [5,6]. This mismatch prevents markets from pricing sustainability risks effectively.

We have seen market failures resulting in market crashes in the past. For example, the 2007–2009 global financial crisis is a good illustration of past financial market failures. This crisis was driven by excessive deregulation, low interest rates, overreliance on self-correcting markets, and unchecked growth in financial instruments like derivatives [7]. These factors created widespread information asymmetries, systemic risk, and ultimately, a collapse in market confidence. Market collapse revealed that markets were far from perfect and not as rational or self-correcting as previously assumed. In order to deal with the situation, governments, and central banks intervened with emergency bailouts, monetary easing, and sweeping regulatory reforms such as the Dodd-Frank Act, which aimed to enhance oversight, transparency, and consumer protection—demonstrating how market failures have been identified, analyzed, and addressed through coordinated policy action [7]. This underscores the need for a balanced regulatory framework and government interference to control and prevent market crashes.

In 2012 John Kay explored 'how well equity markets are achieving their core purposes: to enhance the performance of UK companies' and identified short-termism as a key problem. It was established that investors and companies often focus on immediate returns

rather than sustainable, long-term growth, partly due to misaligned incentives and a decline in trust within the investment chain [4]. These market failures undermine efforts to achieve sustainability on a broad scale. Addressing these failures requires systemic solutions that go beyond the typical ESG frameworks.

Moreover, systemic risks, information asymmetry, and incentive misalignment are further examples of classic market failures and collective action problems, where actions by individual financial institutions can disrupt market stability [8,9].

Systemic risks arise when actions by one entity or person, such as excessive risk-taking, impact the entire financial system. Nier et al. (2007) propose that ‘systemic risk arises when the failure or weakness of multiple banks imposes costs on the financial system and ultimately on the economy as a whole’ [10]. Because financial institutions are interconnected, each may focus on short-term profits, but together, these choices can weaken overall stability. Regulatory bodies like the Financial Stability Board (FSB) have sought to address these issues by promoting global standards, emphasizing that financial stability benefits the collective [11].

Information asymmetry where unevenly distributed information among investors can lead to biased views of risk. Again, standards like the Task Force on Climate-related Financial Disclosures (TCFD) were created to improve transparency and align financial markets with environmental and social goals [12].

One example of market failures creating collective action problems is financial firms’ reliance on government bailouts. In this case, financial stability could be described as a public good, and individual firms’ actions impose costs on society, requiring regulatory and monetary intervention.

Financial institutions have a vested interest in ensuring markets function well, with strong structure and integrity [4,13,14]. In the long run, environmental degradation, such as pollution, emissions, and climate change, could erode this structure and destabilize markets, posing risks to both the institutions and their clients [3,15–17].

Tom Taylor argues that market integrity can serve as a lens to reinterpret asset managers’ duties considering sustainability challenges. Through interviews with experts, Taylor highlights the need to re-think economic and regulatory frameworks to address sustainability risks. However, he notes that without changes to how market integrity is defined by regulators, asset managers are not required to prioritize sustainability as a formal obligation [18]. Similarly, Waygood (2024) argues that ‘it is in the [financial markets] interest—and even their fiduciary duty—to mitigate these long-term risks’ [19]. However, despite this alignment of interests, financial institutions are not taking sufficient action, as they remain focused on short-term gains rather than addressing long-term threats. Carney (2015) described this issue in his speech as the “tragedy of the horizon”, showing how the short-term focus in the financial sector, driven by current incentives and risk assessments, stops it from effectively dealing with long-term challenges [5]. The Kay Review recommended fostering stewardship, realigning incentives toward sustainable growth, and enhancing trust and transparency to shift market focus from short-term profits to long-term sustainability. Kay (2014) suggested that investors should act more like “stewards” rather than simply traders, engaging with companies to drive long-term growth [4]. One way to address these issues is to build on Kay’s recommendation of acting as stewards by implementing Ma-S practices.

1.1. What Is Macro Stewardship

Ma-S, is an idea that market participants have a responsibility to maintain the financial system’s integrity, ensuring it serves society and the planet effectively. This involves collaborating with regulators, policymakers, and other changemakers. The concept has

been defined by Aviva Investors as “financial institutions actively engaging governments, policymakers, non-governmental organizations, academics, and other key influencers to correct material market failures on sustainability issues” [20].

Ma-S plays an increasingly important role in supporting financial stability. As a form of investor engagement that targets systemic risks across markets, sectors, and policy frameworks, Ma-S extends beyond traditional corporate stewardship. It addresses long-term challenges such as climate change, inequality, and governance failures that, if left unmanaged, could threaten the resilience of the financial system. As described by Waygood (2024) by practicing Ma-S the business ‘aims to protect the structural integrity of the markets to foster long-term growth and maximize long-term returns for clients’ [19]. Ma-S helps internalize these risks by encouraging regulatory reform, improved market standards, and more transparent corporate behavior. In doing so, it contributes to a more stable and sustainable financial system. Waygood (2024) believes that “Macro Stewardship” is an ideal term for describing the role of investors engaging in these activities, as it resonates well with the investment community. “Macro” is a well-established and widely recognized concept among financial professionals, that refers to broad, systemic factors impacting economies and markets, while “Stewardship” signifies responsible oversight and engagement, making “Macro Stewardship” a concept that aligns with the investment community’s focus on managing systemic risks and influencing long-term financial stability.

There are other terms used by financial practitioners to describe activities that Ma-S practices, such as ‘policy engagement’, ‘polity’, ‘system change’, or ‘lobbying’. However, what makes Ma-S unique as a term is that ‘unlike “policy engagement” or “system change”, which seems more regulatory or NGO-driven, “Macro Stewardship” carries a sense of duty and relevance specific to investors’ [19]. It implies an obligation to look beyond individual securities and consider the entire financial system, reinforcing the idea that ‘stewardship goes beyond traditional ownership roles to actively shaping and supporting market integrity. This term effectively captures [investors] commitment to broader, long-term impacts on the financial ecosystem’ [19]. Waygood believes that investors ‘have a duty to help maintain the integrity of the market, the fiduciary duty, as well as combined legal obligation’ [19]. It is in the client’s best interest that institutional investors practice Ma-S.

Advocating by institutional investors for system change and for the creation of a better functioning financial system can have a significant impact on the achievement of the United Nations developed Sustainable Development Goals (SDGs) and sustainability. Several financial institutions are already practicing Ma-S. For instance, Bank of America emphasizes advocacy, lobbying, and public policy engagement as part of its efforts to address societal issues [21]. Aviva Investors, BNP Paribas, AXA, Hermes, Groupe BPCE, Rabobank, Unipol, Nordea, Aegon, and Allianz, are leading the way in engaging sustainable finance policy with policymakers [22]. In addition, Legal and General (LGIM), Insight Investment, and Schroders actively engage with policymakers. “We believe policymakers and companies can still mitigate the systemic risks posed by climate change—if we act now. That’s why, as a leading global investor, it is critical that we actively communicate our expectations with both” [23], LGIM “engages as universal owners, aiming to reduce systemic risks across funds and markets” [23].

Therefore, there seems to be a strong belief that Ma-S empowers financial institutions to address market failures and build a more sustainable, resilient financial system. This systemic approach fosters collective solutions to shared challenges, which are essential for tackling pressing environmental and social issues that jeopardize our future. By coordinating efforts across the financial sector, Ma-S aims to create a financial system that not only supports sustainability but actively drives a transition to a fairer, more sustainable world.

However, questions persist about the limitations of Ma-S: What are its real impacts? How efficient and effective is it? And where might it fall short in achieving these ambitious goals?

Effective climate action needs government intervention to create strong laws and policies. However, governments often need encouragement to take bold steps. Recently, US senators accused JPMorgan Chase of misleading the public by weakening its climate commitments, showing the bank's shift away from climate initiatives and its focus on short-term profits over long-term stability. Similar issues are seen with Citi, Bank of America (BofA), and Wells Fargo, all withdrawing from the Equator Principles, and BlackRock reducing its involvement [24]. Dimon (2024) said JPMorgan Chase would wait for "proper government action[that is] not there yet" [24]. Companies hesitate to act unless all businesses move together towards the same goals, fearing that acting alone might put them at a disadvantage. To align everyone's actions, regulatory action is essential. Investment firms have a role in the energy transition, but governments must lead by setting the necessary rules and incentives.

Another example of regulatory disconnect is the recent decision by Citi, Bank of America, Goldman Sachs, and Wells Fargo to withdraw from the Net Zero Banking Alliance. This happened due to pressure from Republican lawmakers during political shifts and the prospect of a Trump presidency, aiming to relax rules and make it easier for banks to lend to the oil and gas industry [25]. This is another instance of why regulatory action is crucial to ensure everyone is working in alignment.

Currently, the financial sector isn't doing enough to address long-term risks because their current norms, incentives, and ways of assessing risk don't make it seem urgent or necessary. At the same time, governments believe that markets can self-regulate, and stepping in would be politically risky and unnecessary. This belief has been shaped by neoliberalism, which became influential in Western policies in the late 20th century. This theory supports the idea that financial markets can regulate themselves through supply and demand forces and the actions of people and companies in the market, emphasizing minimal government intervention. Adam Smith's idea of the "invisible hand" argues that individuals seeking personal gain unintentionally promote societal good [26]. Later, Eugene Fama's The Efficient Market Hypothesis (EMH), suggested that security prices reflect all available information, making it impossible to consistently achieve above-average returns [27]. In addition, economists Friedrich Hayek and Milton Friedman also supported free-market policies, arguing that markets efficiently allocate resources while government intervention often leads to inefficiencies [28,29].

Both neoclassical economics and neoliberalism thinking have been criticized for their limitations in addressing complex, real-world issues. Critics argue that neoclassical economics, with its focus on 'rational actors' and 'efficient markets', often relies on assumptions that overlook modern problems and the complications of actual human behavior and market dynamics. This framework tends to ignore externalities such as environmental and social impacts, treating the economy as a system isolated from broader societal and ecological concerns [30,31]. As a result, neoclassical economics is seen as insufficient to address challenges like income inequality, climate change, and systemic financial risk. These risks require an updated and more dynamic approaches.

Similarly, neoliberalism has been criticized for its emphasis on deregulation, privatization, and dependence on market-based solutions, which can promote inequality and a decline in public welfare. Neoliberal policies often put corporate profits ahead of the public good, weakening vital services and widening wealth gaps. The 2008 financial crisis highlighted the limitations of neoliberal thinking. The market collapse was caused by unregulated markets and unchecked risk-taking, underscoring the need for balanced regulation and a more inclusive economic model. These criticisms suggest that the financial sector's

focus on short-term profits and self-regulation, driven by neoclassical and neoliberal ideas, could make it harder to address long-term risks and complex global problems.

Collective action problems need collective solutions, but governments are hesitant to create a strategy that matches the scale of the challenge. They worry about backlash from businesses and hold onto old beliefs about who should act. This creates a deadlock where businesses want clear rules and regulations, but governments are slow to implement them. Both financial leaders and governments agree that urgent action is needed to tackle climate and environmental crises, but each side is waiting for the other to take the first step. This leads to a standstill, as no single actor has the power to lead effectively without the support of others. Individual efforts are not enough; we need everyone to work together.

Ma-S can break this deadlock by bringing together a large group of private companies to push for systemic changes in regulations and to advocate for policies that support long-term sustainability goals. This combined effort can pressure governments to create regulations that require all businesses to follow higher environmental and social standards, ensuring fair competition. Real progress happens when many businesses work together to push for government action and strong regulations. We need rules that make sustainable practices mandatory for everyone, and Ma-S helps unite businesses to push for these important regulations. It goes beyond the individual efforts seen in Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) strategies, aiming for a coordinated and powerful approach to solving the world's biggest problems.

Finance has a key role to play in driving the transition to more equitable and sustainable ways of living where humanity continues to flourish within the ecological and resource limits of the planet's boundaries. Finance monitors and directs the flow of capital in the economy and therefore is a powerful source in driving sustainability. Through fund allocations and investments, finance can promote sustainable practices, manage risk associated with environmental, social, and governance (ESG) issues, allocate capital towards sustainable investments, and influence not only individual companies, but entire countries, industries, and sectors of economies. Moreover, financial professionals have an obligation and fiduciary duty to act in the interest of their clients rather than serving their own interests, although challenges related to conflicting interests and unclear definitions of fiduciary duties must be carefully managed [27,30,31].

It is argued that being good stewards is more than delivering economic results and institutional investors should take into consideration the broader impact of financial actions on society, the environment, and future generations [32,33]. This aspect emphasizes that financial decisions have powerful consequences that go beyond immediate gains.

For example, ethical financial stewardship seeks a balance between financial gains and the well-being of all stakeholders [34]. It questions whether profits should come at the expense of social and environmental health. Instead of focusing solely on short-term gains, ethical financial stewardship considers the long-term impact of investments and decisions. It acknowledges the importance of preserving resources and opportunities for future generations.

1.2. How the Concept of Sustainability, Macro Stewardship, and Collective Action Relate

Sustainable development, collective action, and market stewardship are interconnected concepts that work together to address global challenges and promote long-term well-being for both people and the planet. Sustainable development focuses on 'meeting the needs of the present without compromising the ability of future generations to meet their own needs' [35]. It aims to achieve a balance between economic growth, social inclusion, and environmental protection, ensuring that development is both socially equitable and environmentally sustainable.

Collective action is the common effort of multiple stakeholders—governments, businesses, NGOs, and individuals—working together to solve societal problems that no single entity can address alone. In the context of sustainable development, this collective effort is critical for correcting global challenges like climate change, poverty, and resource depletion. It requires coordinated actions across sectors and countries. Market stewardship, in turn, refers to the role of financial institutions, businesses, and governments in guiding markets toward sustainable outcomes by promoting responsible investment practices, addressing market failures, and ensuring that environmental and social costs are considered in economic decision-making. It helps align financial incentives with long-term societal goals, creating a positive feedback loop that supports sustainable development.

1.3. Research Question and Future Direction

This paper is guided by the central research question: How can Ma-S by financial institutions serve as a transformative approach in sustainable finance to address systemic market failures and collective action problems to advance sustainable development? It explores the limitations of current individualistic approaches and proposes Ma-S as a breakthrough strategy to address these collective action challenges. It dives into the concept of Ma-S, examining its advantages and disadvantages to determine if it represents a new and transformative approach to sustainable finance, while also questioning its efficiency and effectiveness. It also proposes a definition, purpose, practical applications, motivation for investors, and challenges. This paper sets the groundwork for a broader body of research that will follow next. By introducing and discussing the principles and potential of Ma-S as a solution to collective action problems like climate change, biodiversity loss, antimicrobial resistance (AMR), and social inequality, it aims to trigger further investigation and practical application. Future research will explore the mechanisms, impacts, and strategies for effective implementation of Ma-S, providing detailed case studies, empirical data, and comprehensive analyses to support and expand upon the foundational ideas presented here.

2. Literature Review

Although there is extensive literature on institutional investors' engagement with investee companies (this paper will refer to it as Micro Stewardship (Mi-S)), available literature largely overlooks investor's participation in public policy engagement. Although the literature acknowledges the clear benefits of engaging with investee companies, this alone is insufficient to achieve sustainable development goals and protect investors from future risks. This suggests that additional measures are necessary to ensure comprehensive investor protection against future uncertainties and to achieve sustainability. This paper explores policy engagement (referred to here as Macro Stewardship (Ma-S)) as an alternative to Micro Stewardship (Mi-S), examining its advantages and disadvantages.

2.1. Collective Action Problems

It is important to start the discussion by defining Climate Change as a collective action problem. Climate change is a global issue that impacts everyone and requires cooperation from countries, industries, and individuals to address it effectively. Greenhouse gas emissions are cross borders and it is impossible for any single country or sector to solve the problem on its own. Tackling climate change calls for global efforts to reduce emissions, adapt to its effects, and adopt sustainable practices. Governments, businesses, communities, and individuals must work together to protect the environment and secure a stable climate for future generations.

One major challenge is that the benefits of reducing emissions are shared globally, while the costs are often endured locally or nationally. This creates issues like the free rider problem, where some avoid acting, expecting others to do so, and the tragedy of the commons, where shared resources are overused without accountability. Overcoming these challenges requires strong collaboration and collective responsibility.

Solutions include creating international agreements (like the Paris Agreement) and introducing economic incentives such as carbon pricing, technological innovations, public awareness campaigns, and regulatory frameworks to ensure coordinated efforts. Effective action requires comprehensive and cooperative approaches to align the interests of diverse actors and achieve global sustainability goals.

Earlier work by Olson “The Logic of Collective Action” [36] introduced the idea that large groups struggle to act in their common interest due to the “free rider” problem. He explained that in bigger groups, it’s harder to notice each person’s contribution, making people more likely to free-ride without getting caught. Additionally, reaching agreements and coordinating strategies in larger groups is more complicated and costly. Therefore, the more participants there are, the lower the chances of successful collective action and the fewer benefits that can be achieved together.

Later, Hardin introduced “The Tragedy of the Commons” concept where he described a situation where individuals, acting in their own self-interest, overuse and deplete shared resources, leading to long-term collective loss [37]. He illustrated this with the example of villagers feeding their cows on a common grassland. Each villager benefits individually by adding more cows, but if all villagers do this, the field becomes overgrazed and unusable. This concept highlights the conflict between individual benefits and the common good, demonstrating how unregulated use of shared resources can lead to their destruction.

Ostrom challenged the idea that shared resources are always mismanaged in her research “Governing the Commons” (1990) demonstrating through experiments that self-governance is possible and communities can successfully manage shared resources through local rules and cooperation [38].

Ostrom highlighted key factors for success, such as clear rules and local involvement. Her work had a big impact on the field of commons research and practice and emphasized the importance of institutional design principles in effectively governing common-pool resources. Her insights have been applied to different contexts, including budgeting and fiscal commons analysis. However, her focus on small-scale solutions may not fully address larger issues like climate change.

Climate change is a global collective action problem where everyone benefits from reduced emissions, but individual countries and companies bear the cost [15]. Dietz, Ostrom, and Stern (2003) suggested that multi-level governance, involving local to global efforts, could help manage this issue [39].

While this idea is promising, Agrawal (2003) noted that local management alone often isn’t enough, as broader political and economic contexts also matter [40]. Effective climate action requires international coordination and policies.

The financial industry complicates collective action on climate change. Banks often prioritize short-term profits over long-term sustainability. For example, JPMorgan Chase faced criticism for weakening its climate commitments, highlighting a conflict between profit motives and climate goals [24].

Ostrom’s ideas help understand collective action, but global financial markets need more than local efforts. Baland and Platteau (1996) pointed out that local governance can be limited by external market pressures, which is crucial for the financial sector [41].

Modern thinkers like Shirky (2008) argue that technology can aid collective action by reducing coordination costs and enabling mass mobilization [42]. However, the fi-

financial industry's global influence requires strong international regulations to support climate goals.

Collective action theories, especially Ostrom's work, provide insights into cooperation and resource management. However, solving climate change needs both local and global strategies. This involves integrating financial practices with sustainability goals and enforcing international regulations, changing financial incentives and norms to ensure the financial industry supports long-term environmental health. Falkner (2016) provides empirical evidence of this global coordination challenge through his analysis of national pledges under the Paris Agreement. He argues that while the agreement marked a pivotal shift from the rigid, top-down Kyoto model to a more flexible, bottom-up system of voluntary national commitments and peer accountability, its reliance on non-binding pledges reveals a classic free-rider problem. Without enforceable mechanisms, states may fall short of implementation, underscoring the need for stronger governance and alignment of domestic and international climate finance priorities [43].

Gjolberg (2011) compared soft and hard regulatory approaches in business and challenged the common assumption that business opposes regulation, showing that leading Nordic CSR firms actually prefer stronger international social and environmental regulation over voluntary approaches. It concludes that under certain conditions, corporate self-interest can align with support for hard law in global governance [44].

2.2. *Why Micro Engagement Does Not Work?*

Engaging with investee companies enhances corporate oversight, fosters a focus on long-term performance [44,45], and encourages better ESG practices. Investors engage more when they understand that good ESG practices increase long-term value and when they promote responsible ownership.

Critics argue, however, that focusing on micro-engagement or Micro Stewardship (Mi-S) can drive company directors toward short-term decisions [46]. Furthermore, institutional investors' informal interventions, such as private meetings with investee companies, can create information asymmetries that benefit certain investors, potentially leading to market transactions that widen the bid-ask spread and reduce stock liquidity [46]. Additionally, the risk of free-riding by other shareholders, especially competitors who have invested in the same company, remains significant. Limited resources dedicated to monitoring investee companies often result in a reliance on proxy advisors for voting recommendations, highlighting a lack of in-depth knowledge about specific companies and their markets. Conflicts of interest may also arise from business relationships between institutional investors and issuers, deterring actions that might conflict with the management [47]. Moreover, the absence of a clear regulatory framework for investor engagement poses legal risks, further complicating the landscape [48].

The literature also indicates that not every investment manager can participate in Mi-S. Only some investment managers engage with the companies they invest in, with larger firms being more active due to their greater resources to cover costs and access top management and their ability to hire and train their staff [49]. Smaller investment managers struggle because of constrained resources [50], skills and expertise [51]. However, it has been noted that when investors work in collaboration with each other, they can improve how companies behave. This cooperation helps share resources, build skills, and boost their influence as shareholders. This suggests that it is beneficial to be part of an investment association being part of collaborative scheme such as PRI.

2.3. *Why We Need Hard Regulations and Policy Engagement or Macro Stewardship*

Beyond micro engagement, there is an argument about whether the industry and society need hard regulations or voluntary and soft regulations are enough. It's important to look at the effects of voluntary initiatives and soft policies versus hard policies. The literature demonstrates that hard policies produce better results. Pfeifer and Sullivan found that soft policies got investors talking about climate change but didn't influence their investment choices. Only hard policies led to climate change being included in investment analysis [52]. This suggests that stronger policies are needed to effectively engage investors in climate issues, supporting the idea that Ma-S is a valuable practice.

To further support the point of the importance of policy engagement, Robbins, in "Shaping the Market: Investor Engagement in Public Policy", highlights the importance of public policy and regulation for effective investment and sustainable development [53]. He argues that without regulatory frameworks, crucial aspects like property rights and market protection wouldn't exist, underscoring the need for well-designed regulations. Historically, institutional investors have shaped public policy to benefit both their clients and themselves. Now, Robbins suggests, they must go beyond self-interest to influence policies that promote sustainable development [53].

The author argues that sustainable development requires major economic changes, particularly in balancing risks and rewards and addressing global issues like poverty and environmental decline. However, most investors are not involved in policy discussions on these topics. While some ethical investors and pension funds are leading the way in climate risk management, most institutional investors have not yet taken on this responsibility. Robbins' paper calls for investors to have a clear mandate for policy engagement, with strategies that align with long-term societal and environmental goals. By prioritizing sustainability, investors can help shape policies that promote economic stability, social equity, market efficiency, and innovation [53].

Similarly, Taylor's research highlights the importance of re-evaluating economic and regulatory frameworks to address sustainability risks. He points out that without clear regulatory guidance on market integrity and specific responsibilities for asset managers, sustainability remains an optional, rather than a formal, obligation. [18] While Taylor provides a valuable framework for understanding these challenges, there is a clear need for stronger enforcement mechanisms and well-defined pathways to align policy engagement with sustainability goals. This gap underscores the need for further research.

2.4. *Critique of Policy Engagement or Macro Stewardship*

While the argument for institutional investors to engage in sustainable development policy is compelling, it overlooks several practical challenges. Firstly, the mandate for policy engagement may conflict with investors' primary fiduciary duty to maximize returns for their clients [53–56]. While there is a traditional belief that fiduciary duty requires maximizing financial returns for investors, an evolving view suggests that sustainable investing and considering ESG factors are also important aspects of fiduciary responsibility [57]. In fact, the Ownership Commission has suggested that Fiduciary Duty might be redefined in the context of investment management to take into account the long-term interests of beneficiaries. Balancing long-term societal goals with short-term financial performance can create tensions and potential pushback from stakeholders expecting immediate returns.

Additionally, the capacity and expertise required to influence public policy effectively may be lacking in many investment firms, particularly smaller ones [58]. This focus on policy engagement could also divert resources from core investment activities, potentially impacting overall performance. Furthermore, the assumption that all investors have the

same ability and willingness to engage in policy discussions is overly optimistic, as institutional investors vary widely in their priorities, resources, and operational models [59–62].

Finally, there is a risk of regulatory capture, where large investors might influence policies to favor their interests rather than the broader public good, leading to unintended negative consequences. For example, powerful asset managers like Vanguard, State Street, and BlackRock have stepped in as de facto regulators, implementing rules on social issues such as climate change and workplace diversity through their proxy voting policies, but this raised concerns about their lack of democratic accountability [63].

2.5. What Drives Investors to Engage?

To encourage institutional investors to participate, it is essential to understand their motivations for engaging in advocacy and identify the necessary steps to involve them effectively. Research by Yamahaki and Marchewitz examines the motivations behind institutional investors' engagement with government entities and the challenges they experience in this process [64].

Interviews and document reviews indicate that investors engage in policy activities to fulfill their fiduciary duty, improve investment risk management, and develop a reputational differentiator. However, they encounter several challenges, such as the necessity for a longer-term perspective, perceived limited influence over government decisions, the need for capacity building for both investors and governments and difficulty in accessing government representatives [64]. It's worth noting that this study is limited by a small number of interviewees, as the authors struggled to find investors willing to participate. However, this difficulty suggests that policy engagement is not yet a widely adopted strategy among investors.

2.5.1. Risk Management: Systemic Risks Drive Investors to Engage

Ma-S should be used as a strategy to handle large-scale risks that could harm investments and the overall market. According to a recent report, a Global Risk Nexus of ten key systemic risks, including climate change, biodiversity loss, natural disasters, antimicrobial resistance, pandemics, cyber risks, and failures in global governance—poses interconnected challenges to both economies and societies [65]. These complex and potentially devastating risks have the capacity to amplify one another, spreading through financial systems and causing negative impacts across different types of asset classes and sectors. For large institutional investors, who operate as 'universal owners' with highly diversified and long-term portfolios, the potential for these risks to impact their investments is significant. Ma-S therefore becomes essential, enabling investors to address the root causes of these systemic risks and work towards long-term financial stability. By influencing policy, promoting sustainable practices, and engaging with companies on governance and risk issues, investors seek to protect their portfolios from cascading risks that could otherwise diminish returns and erode asset values in the future.

These systemic risks demand collective action and cross-sector engagement. The Citi GPS report argues that these complex risks can be managed through careful analysis and proactive strategies, proposing \$3 trillion in annual investment to reduce the frequency, severity, and likelihood of cascading risks. However, it is safe to say that achieving such large-scale investment, especially in a time of financial constraints and opposing political views, may be challenging. Moreover, the report suggests turning negative feedback loops into positive reinforcement mechanisms—thus preventing one risk from worsening another. Although it sounds like an appealing concept, it lacks detailed guidance on how this would work in practice. While the report suggests that effective risk management could save

trillions and promote economic growth, it does not fully address the complexities of global cooperation or the uncertainties involved in predicting the outcomes of these strategies.

2.5.2. Risk Management: Universal Ownership Drives Investors to Engage

Universal ownership theory is used to analyze how institutional investors, managing highly diversified and long-term portfolios, engage with systemic issues such as climate change, labor rights, corporate governance [66,67], and corruption [68]. The theory of universal ownership states that because their portfolios are highly diversified across sectors, markets, and asset classes, and are held for the long term [69], the returns of “universal owners” are more influenced by overall economic developments than by individual company profits. Therefore, their interests align with those of the public, as maximizing long-term profits involves not only better returns from individual firms but also improving the overall economy [66]. As a result, since it is challenging to avoid systemic risks by simply divesting from a few individual stocks, universal owners must consider societal and economic developments. They have a natural interest in “universal monitoring” [66,70,71]. Hansen and Pollin also add that externalities caused by individual companies cannot be resolved by divestment alone—as if one company sells the stock, another will still buy it; They argue that policies and regulations are needed to change corporates, and engagement is a tool to help shape these frameworks [72].

Similarly, Hawley and Williams argue that universal owners should prioritize the overall economic return of their portfolios by addressing public policy issues, such as environmental degradation or healthcare, even if it means accepting lower short-term returns from specific companies. This is because mitigating negative externalities and systemic risks can lead to long-term benefits and cost savings for the portfolio, aligning with their fiduciary duty to support public interest and long-term financial stability [66]. Simply, universal owners are invested in sustainable development, as they gain or lose from environmental or societal impacts created by their portfolio companies [70].

2.5.3. Reputational Boost: Why Investors Turn to Ma-S and Non-Market Strategies

Integrating Ma-S within a Non-Market Strategy (NMS) serves as both a reputational asset and a tool for managing the socio-political environment in ways that are favorable to the firm. Engaging in Ma-S allows firms to differentiate themselves strategically and manage their reputation by addressing broader societal and industry-wide issues outside traditional corporate ESG efforts. By actively shaping public policy and collaborating directly with governments, rather than relying on external NGOs, firms position themselves as leaders in tackling issues such as climate change and social equity. This approach increases trust and credibility with key stakeholders—investors, customers, and regulators. Additionally, by actively participating in the regulatory process, companies that participate in Ma-S can help design frameworks that align with their own operational needs, potentially lowering compliance costs and creating favorable conditions for growth. This proactive action secures a competitive advantage, as it allows them to anticipate regulatory changes and adjust strategies ahead of competitors. Hillman et al. (1999) and Lux et al. (2011) analyze Corporate Political Activity (CPA) as a strategic approach for firms to manage and influence political institutions and actors to create favorable business conditions. Hillman et al. (1999) categorize CPA into three main strategies: information, financial incentive, and constituency-building, each aiming to leverage resources like lobbying, campaign contributions, and alliances to gain regulatory or policy advantages [73]. Lux et al. (2011) expand on this by examining the conditions and institutional contexts in which CPA is most effective, highlighting how variations in political and economic environments shape CPA’s success [74]. Together, the studies emphasize that CPA enables firms to proactively

navigate regulatory landscapes, aligning policy outcomes with their strategic interests and competitive advantages.

2.6. What Makes Successful Engagement?

Successful policy engagement involves several key factors, as highlighted in the literature. While there's limited academic research on investor engagement with governments, studies have extensively explored how other groups like corporations, NGOs, think tanks, corporations, and religious organizations influence policy and what strategies they use. For example, in the USA, the most common policy engagement tactic is directly participating in coalitions to influence policy [75]. Religious institutions, by contrast, frequently employ subtle methods to influence policy, such as involvement in policy committees and the management of educational and welfare institutions. Corporations often avoid government intervention by advocating for self-regulation, lobbying against regulations, and arguing that government involvement is unnecessary [76,77].

Weible et al. (2012) identify three essential stages of policy influence: developing deep knowledge about the subject, building networks, and participating over an extended period [78]. This thorough understanding and sustained involvement are crucial for making a significant impact. Bennett et al. (2012) support this by showing that personal connections between think tank members and policymakers foster trust and influence, enhancing the effectiveness of policy engagement [79]. Additionally, Irwin (2015) notes that business associations achieve greater success in influencing public policy when they maintain frequent contact with policymakers and possess strong advocacy skills [80]. These findings suggest that for Ma-S to be successful, it should incorporate these strategies: cultivating expertise, building and maintaining networks, and engaging consistently with policymakers. By doing so, institutional investors can more effectively advocate for sustainable practices and policies, aligning their long-term goals with broader societal interests.

2.7. Gaps in Literature

There is a significant gap in the literature regarding the engagement of institutional investors with policymakers, with few studies addressing this critical area. Additionally, the concept of Ma-S is not well-defined, lacking a clear definition, conceptual framework, key performance indicators (KPIs), and an exploration of associated challenges. To advance this field, it is crucial to establish a comprehensive definition and framework for Ma-S that includes measurable KPIs and identifies the potential obstacles to effective implementation. Future research should also explore the dynamics of policy engagement by institutional investors, examining how they can leverage their influence to shape sustainable policies. Furthermore, investigating the role of collaborative networks and long-term participation in policy processes, as highlighted by existing studies, can provide deeper insights into effective strategies for Ma-S. It is also important to consider the integration of social and governance factors alongside environmental considerations, ensuring a holistic approach to sustainability. Finally, exploring the potential of smaller investors and non-institutional actors in the policy engagement process can enhance the inclusivity and impact of Ma-S efforts. This paper aims to fill these gaps by proposing a clear definition of Ma-S, discussing its practical applications, and identifying its challenges, thereby laying the groundwork for future research and effective implementation.

3. Exploring Stewardship

3.1. Historical Context and Evolution

In the financial context, stewardship gained prominence following the 2008 financial crisis. The crisis highlighted the need for greater oversight and responsible management of

financial resources. The influential ‘Walker Review’ [81] and the subsequent development of the UK’s Stewardship Code by the Financial Reporting Council (FRC) underscored the importance of institutional investors in promoting good governance and long-term value creation.

The ancient roots of stewardship beliefs can be traced back to Plato, Neoplatonism, the Old Testament, and Christianity [82]. These sources highlight the notion that humans are entrusted with the responsibility of nurturing and protecting nature. The concept of stewardship has historically been linked to the belief that the Earth is entrusted to humanity by a higher power, resulting in a responsibility to nurture and protect it. However, in recent times, the notion of stewardship has evolved to encompass a broader accountability to society rather than a religious framework. Stewardship embodies principles of justice and upholds the Precautionary Principle, emphasizing a careful and proactive approach to address societal and environmental concerns [82]. Stewardship adopts a comprehensive approach and is relevant to the conservation of biodiversity, the promotion of sustainable development, and the mitigation of climate change. It recognizes our collective responsibility as human beings to safeguard and maintain the natural world, considering the well-being of both society and the environment [83,84].

In the financial context [85], institutional asset owners, who manage funds on behalf of beneficiaries, have a responsibility to protect and manage those funds along with the assets and companies in which they are invested. Following the 2008 financial crisis, the concept of investor “stewardship” gained prominence, further accentuated by the influential ‘Walker Review’ [81].

The PRI defines stewardship as: ‘the use of investor rights and influence to protect and enhance overall long-term value for clients and beneficiaries, including the common economic, social and environmental assets on which their interests depend’ [85]. Further to the definition, PRI splits the stewardship practice into ‘Investee Stewardship’ (in this paper referred to as ‘Micro Stewardship’) and ‘Broader Stewardship’ (in this paper referred to as Macro Stewardship) [85].

Further, in 2010, the FRC published the UK’s Stewardship Code (The ‘code’), [86] which outlined several principles to which ‘institutional investors’ should adhere. The code encouraged institutional investors to monitor and engage with the boards of issuers, and to disclose their policies on stewardship and voting [86].

3.2. Conceptual Framework of Macro Stewardship

Ma-S represents a strategic shift in the role of financial institutions from simply managing investments to actively participating in shaping the broader economic and policy landscape. Unlike traditional stewardship which primarily involves corporate engagement and shareholder activism, Ma-S extends the scope of influence to include systemic interventions. Financial institutions, given their significant resources and influence, are well-positioned to engage with a wide range of stakeholders to address market failures that individual companies cannot resolve alone.

The fundamental premise of Ma-S is that sustainable financial markets require structural changes that go beyond corporate boundaries. These changes can only be achieved through coordinated efforts involving multiple sectors and stakeholders. Financial institutions, therefore, should leverage their financial power and networks to advocate for policy reforms, support research and innovation, and foster collaborative initiatives that aim to correct market failures related to sustainability.

Ma-S is about systemic change and steering our society towards sustainability. Macro-level reform requires system-level thinking: an ability to step outside a narrow view and

see as much of the ‘whole’ as possible. It requires an understanding that every system has leverage points where targeted interventions can have a big impact [20,52,87].

Ma-S is also about protecting the long-term financial interests of the industry and the clients through helping shape long-term policy frameworks [52]. It is about addressing systemic risks across asset classes and portfolios. For example, climate change is a risk that affects all industries and would subsequently affect the valuation of portfolio holdings [17]. Lack of regulatory certainty increases investment risk and by participating in public policy, investors can address issues with corporate transparency and establish the type and level of ESG information that investors can access. Policies and regulations can be legally enforced and therefore promote transparency and urgency to respond to legal mandates.

While the term “Macro Stewardship” is not explicitly defined as such in academic literature, related concepts and frameworks align with its principles. For example, the academic literature often explores topics such as shareholder activism, polity, broader stewardship, system-level stewardship, or systematic stewardship [85–88].

These discussions touch upon the core elements of Macro Stewardship, even if the term itself may not be explicitly mentioned.

PRI for example explores the concept of broader stewardship and defines tools and activities used for practice as:

- policy engagement,
- engagement with standard setters,
- engagement with industry groups,
- negotiation with and monitoring of the stewardship actions of intermediaries in the investment chain, e.g., asset owners engaging external managers, limited partners engaging general partners,
- engagement with other stakeholders, e.g., NGOs, workers, communities, and other rights-holders, and
- contributions to public goods (e.g., publicly available research) or to public discourse (e.g., through the media) that supports stewardship goals [85].

Ceres, in their research report, maps out different influence strategies that investors could use in achieving sustainability. Their research suggests that these actions could be carried out directly or through a third party such as a trade association or industry body. Actions include:

- direct advocacy by engaging with policymakers directly through meetings, letters, or public statements to express views on specific policy proposals or issues
- collaboration with other stakeholders to advance a shared policy agenda
- conducting research and analysis to inform policy development and advocacy.
- provide information and education to policymakers and other stakeholders about the potential benefits/drawbacks of specific policy proposals (using domain knowledge)
- using voting and shareholder resolutions to advocate for policy changes at individual companies or to encourage industry-wide reforms [87].

Ma-S reflects a growing recognition that the financial sector plays a key role in addressing sustainability challenges and contributing to long-term sustainable development. The concept has emerged as a response to the urgent need for systemic change, evolving regulatory landscapes, investor expectations, and global reach of systemic problems and the ‘universal owner’ concept of institutional investors.

The origins of Ma-S can be traced to the realization of institutional investors of their far-reaching impacts on sustainability issues, responsible investment movement (ESG integration), shareholder activism, and a rise of global sustainability initiatives such as the United Nations Sustainable Development Goals (SDGs) and the Paris Agreement on

climate change. These initiatives have provided a roadmap for addressing sustainability challenges and prompted institutional investors to align their strategies with these goals and contribute to their achievement.

3.3. Purpose and Applications of Macro Stewardship

The primary purpose of Ma-S is to address and rectify material market failures that hinder sustainable development and to address systemic issues and systematic risks.

Systemic Risk ‘is the risk associated with the manifestation of an event capable of causing, through propagation and contagion mechanisms, structural effects and a situation of systemic and generalized instability’ [89]. Climate and biodiversity risks are examples of systemic risks. They impact our society, increase uncertainty, and lead to unpredictable financial markets. Floods, wildfires, and droughts disrupt supply chains, increase insurance costs, and damage physical assets. Rising temperatures and extreme weather put pressure on economies and infrastructure. At the same time, biodiversity loss makes the climate problem worse, impacting agriculture, fisheries, and water supplies. This raises costs and threatens future businesses that are dependent on these resources.

UNPRI defines systematic issues as “issues that pose systematic risks to the common economic, environmental, and social assets on which returns and beneficiary interests, depend”. Systematic risk (interchangeable with “market risk” or “market-wide risk”) refers to risks transmitted through financial markets and economies that affect aggregate outcomes, such as broad market returns. Because systematic risk occurs at a scale greater than a single company, sector, or geography, it cannot be hedged or mitigated through diversification. However, systematic sustainability issues can, and should, be influenced through responsible investment activities [90].

These market failures occur when the allocation of goods and services by a free market is inefficient, leading to negative externalities or the under-provision of public goods. Sustainability issues, such as carbon emissions, deforestation, and social inequities, often stem from such market failures. Ma-S aims to correct these inefficiencies through several key strategies. Firstly, financial institutions can advocate for policy reforms, influencing policy-makers to enact regulations that internalize externalities. Examples include carbon pricing, subsidies for renewable energy, and stricter environmental regulations. By engaging in policy advocacy, financial institutions can create a regulatory environment that supports sustainability goals.

Supporting research and innovation is another crucial aspect of Ma-S. By funding and collaborating with academic institutions and think tanks, financial institutions can drive the development of new technologies and practices that promote sustainability. This approach not only fosters innovation but also ensures that the financial sector is actively contributing to the advancement of sustainable solutions. Additionally, fostering multi-stakeholder collaboration is vital. Engaging with NGOs, governments, and other key influencers helps create synergies and collective actions that are more effective than isolated efforts. Such collaborations can amplify the impact of sustainability initiatives and ensure that diverse perspectives are integrated into decision-making processes.

Ma-S can be applied in various domains where market failures block sustainability. In the context of climate change mitigation, financial institutions can advocate for global carbon pricing mechanisms, support renewable energy projects, and fund climate research. By engaging with governments and international bodies to establish robust climate policies, significant reductions in greenhouse gas emissions can be achieved. In terms of social equity and inclusion, promoting policies that address income inequality and social exclusion can contribute to more equitable economic systems. This involves advocating for fair labor practices, supporting affordable housing initiatives, and investing

in social enterprises. Biodiversity conservation is another critical area where Ma-S can have a substantial impact. Financial institutions can work with environmental organizations and governments to protect critical ecosystems. This includes funding conservation projects, advocating for biodiversity-friendly policies, and investing in sustainable agriculture and forestry practices.

The implementation of Ma-S can lead to several positive outcomes. By addressing the root causes of market failures, Ma-S can lead to systemic changes that promote long-term sustainability. This includes creating more resilient economic systems, reducing environmental degradation, and improving social outcomes. Financial institutions that actively engage in Ma-S can also build stronger reputations and trust with stakeholders, including clients, regulators, and the public. This enhanced reputation can translate into competitive advantages and increased market share. Furthermore, by supporting research and development, Ma-S can spur innovation in sustainable technologies and practices. This not only helps in solving sustainability challenges but also creates new business opportunities and growth areas for financial institutions.

Large funds are universal owners and own most of the investable assets in the world, in fact, they own the economy. Therefore, their fate as an investor is tied to the economy. As massive investors those funds have nowhere to run or hide and therefore, must take steps to minimize the long-term risk of systemic risks, such as climate change. It must take a systemic approach rather than manage risks for individual stocks [91]. Therefore, Ma-S addresses the issue of Risk Management. Rather than managing the risk of individual portfolios, it takes a systemic approach and manages risk on a system level.

3.4. Clarification of What Macro Stewardship Is NOT

Ma-S is not the same as Mi-S, which focuses on individual-level actions such as investors engaging with companies to influence their governance or ESG practices. While Mi-S involves direct engagement with companies to improve their sustainability efforts, Ma-S addresses broader systemic issues by involving a wide range of stakeholders, including governments, NGOs, policymakers, and financial institutions. It aims to correct market failures and implement policies that drive large-scale sustainability changes rather than focusing on individual actions within specific companies.

Additionally, Ma-S is not a short-term solution to sustainability challenges. Unlike initiatives that address immediate concerns, it focuses on long-term, structural changes that reshape markets to support sustainable development. This approach requires the creation of policies and market mechanisms that align economic incentives with sustainability goals, ensuring that sustainability becomes embedded in the fabric of the economy rather than being treated as an afterthought.

Furthermore, Ma-S goes beyond corporate social responsibility (CSR). While CSR refers to a company's voluntary actions to improve its environmental and social impact, Ma-S aims to drive systemic changes at the policy and market level. Instead, Ma-S advocates for the transformation of market systems to support sustainability at a much larger scale.

3.5. Empirical Illustrations of Macro Stewardship in Practice

Ma-S is already taking shape through the actions of several leading financial institutions. Aviva Investors (AI), Legal and General Investment Management (LGIM), Schrodgers, AXA, BNP Paribas, Allianz, and Hermes are just some examples of financial institutions actively involved in public policy, regulatory consultations, and joint sustainability efforts.

For example, at the time of writing, AI had a dedicated Ma-S team, focused specifically on engaging with governments, regulators, standard-setters, NGOs, academics, and multi-lateral organizations (such as the UN, OECD, IMF, etc.) to guide the development of market

rules and standards. According to Waygood (2024), the aim of the group was to “protect the structural integrity of the markets to foster long-term growth” [19]. Notable case studies of AI’ Ma-S work include their involvement in shaping the Task Force on Climate-related Financial Disclosures (TCFD), establishing the International Platform for Climate Finance (IPCF), and the EU’s High-Level Expert Group (HLEG) on sustainable finance.

Steve Waygood, their Chief Responsible Investment Officer, was a longstanding member of TCFD who actively helped to shape the final recommendations and advocated for mandatory climate reporting. AI has since demonstrated leadership by publishing detailed annual TCFD-aligned reports at both the entity and product levels, showcasing how climate risks and opportunities are integrated into investment processes. Their efforts have been recognized industry-wide, including winning the TCFD Report of the Year award in 2020 [17]. In addition, AI convened a coalition of stakeholders—IPCF, aiming to align global financial flows with the Paris Agreement targets [20].

Moreover, AI played a central role in the EU High-Level Expert Group (HLEG) on Sustainable Finance, with Steve Waygood appointed as one of its 20 members. Launched in December 2016, the HLEG was tasked with recommending how to embed sustainability into the EU’s financial policy framework. Its 2018 report laid the groundwork for the EU Action Plan on Sustainable Finance and led to key regulatory milestones, including the EU Taxonomy, the Sustainable Finance Disclosure Regulation (SFDR), and green bond standards. Through these efforts, the HLEG helped mainstream sustainability in financial regulation and encouraged system-wide thinking [92].

The HLEG case is a leading example of direct engagement involving multiple stakeholders with regulatory bodies and their consequential impact on the formulation of a comprehensive roadmap for sustainable finance. The work undertaken by the HLEG has had a significant influence on the evolution of sustainable finance policies within the European Union (EU), resulting in the integration of its recommendations into numerous legislative endeavors.

Several other financial institutions also took part in the HLEG, with their involvement reflecting key elements of Ma-S. AXA Group was represented by Christian Thimann, its Group Head of Regulation, Sustainability, and Insurance Foresight who also chaired the HLEG. Alecta, a Swedish pension fund, Deka Investment, Mirova, and APG Asset Management also participated in the group’s discussions [92]. Together, these financial actors brought their expertise in responsible investment to help shape the EU’s sustainable finance agenda.

3.6. Identifying Challenges with Macro Stewardship

Ma-S faces several challenges, including aligning incentives between short-term profitability and long-term sustainability goals. Its effectiveness relies on stakeholder collaboration and the ability of financial institutions to influence policy without falling into regulatory capture. Implementing Ma-S requires financial institutions to shift from traditional profit maximization to a broader approach that includes environmental and social dimensions.

There are also gaps in Ma-S that need addressing. The lack of a universally accepted definition or standard leads to inconsistent interpretations and applications. Without clear metrics and KPIs, it’s challenging to quantify Ma-S’s impact. While environmental factors are often considered, social and governance issues like human rights, labor standards, and diversity are frequently overlooked. Enhanced transparency and reporting mechanisms are needed to track progress and impact.

Ma-S must deepen its focus on systemic risks and externalities, considering broader societal impacts. Including smaller investors and non-institutional actors can enhance its

effectiveness and inclusivity. Addressing these gaps requires ongoing collaboration, clear standards, improved transparency, and integration of social and governance considerations.

The Ma-S teams at financial institutions can potentially face internal tensions between their advocacy goals and profit-driven objectives. Clear communication, aligned goals, and strong leadership are essential to overcome these challenges. Selective advocacy can undermine credibility, so balancing strategic selectiveness with genuine commitment is crucial. Measuring success requires robust metrics balancing social impact with financial performance. Acting as both an advocacy group and a strategic representative can create conflicts of interest, necessitating a careful approach to maintain alignment with corporate objectives. Maintaining stakeholder trust involves balancing public image actions with genuine ESG commitment, and avoiding greenwashing.

Further, this paper proposes that effectiveness can be measured through regulatory changes, market shifts, and broader ESG adoption, with accountability maintained through clear objectives and transparent reporting. Balancing investor expectations for financial returns with ESG commitments requires clear communication and demonstrating long-term benefits. Advocacy efforts must comply with regulatory standards and ethical boundaries to avoid legal and reputational risks. Resource allocation must strategically balance funding activist initiatives with ensuring financial returns, prioritizing and justifying allocations to retain passionate talent within the corporate structure.

4. Proposed Definition of Macro Stewardship, Practice and KPIs

Building on a literature review, practitioner observations, and research analysis, this paper presents a refined definition, potential best practices for Ma-S, and recommendations for evaluating its impact.

While these ideas represent our initial findings, they will need to be validated through further research.

4.1. Proposed Definition of Macro Stewardship

Based on the above analysis, a new proposed definition is: Macro Stewardship (Ma-S) is a practice by financial industry professionals that harnesses the influence and resources of financial institutions to drive systemic change, address market failures, and resolve collective action challenges. This practice is aimed at benefiting society and ensuring the long-term stability of finance and investments. It aims to actively shape economic policies, environmental standards, and social frameworks through strategic advocacy, collaborative efforts, and innovative approaches.

4.2. How to Perform Macro Stewardship Effectively?

For effective Ma-S, preliminary research suggests that financial institutions need a comprehensive understanding of sustainability issues—such as climate change, social equity, and governance—supported by continuous research and academic collaboration. Recognizing the interdependence of these issues and their impact on financial performance and portfolios is also essential. Studies highlight that building strong networks with policy-makers, industry groups, NGOs, academia, and other stakeholders is vital to amplify efforts and drive collective action toward sustainability. For example, LGIM in their 2023 Active Ownership document specified: “the Investment Stewardship team works with regulators, policymakers and our industry peers to tackle systemic issues” [93]. Companies that practice Ma-S engage with Policymakers through formal engagement, thought leadership, early engagement, collaboration, and strategic activities. [93],

The literature emphasizes active involvement in policy discussions, advocating for regulatory support for sustainability, direct advocacy, stakeholder collaboration, and uti-

lizing shareholder resolutions to advance reforms. Supporting innovation in sustainable technologies and practices and maintaining transparent reporting systems for progress tracking and communication are also essential components.

Table 1 lists resources used by companies regularly practicing Macro Stewardship. This data was compiled by analyzing the latest stewardship reports from various companies, such as LGIM, Insight Investment, Schroeders, Prudential, ABRDN, HSBC, M&G, and Aviva Investors [93–100].

Table 1. Resources used by companies that practice Macro Stewardship.

National	Multilateral	Non-Government
Regulators: UK Financial Conduct Authority (FCA), US Security and Exchange Commission (SEC), Japan Financial Services Agency (JFSA), Germany Bundesanstalt Fur Finanzdienstleistungsaufsicht (BaFin)	European Commission Nation: UN Framework Convention on Climate Change (UNFCCC), The Conference of the Parties (COP) and Convention on Biological Diversities (CBD), the Principle for responsible Investment (PRI)	
Parliament	International Financial Institutions (The World Bank)	Academia
Central Banks	Multilateral Organizations: World Health Organization (WHO), International Financial Reporting Standards (IFRS), Organization for Economic Development (OECD), International Organization of Securities Commissions (IOSCO)	Civil Society
Government Departments, Ministries: UK Department of International Development, His Majesty Treasury		Non-governmental Organizations (NGO): Environmental Defense Fund,
Government Working Group Initiatives		Industry Associations: Glasgow Financial Alliance for Net Zero (GFANZ), The Investment Associations (IA), Asian Corporate Governance Association (ACGA)

Companies involved in Ma-S frequently participate in or support the initiatives listed in Table 2. This list is based on reports from the eight largest UK investment firms by assets under management: LGAM, Insight Investment, Schroders, Prudential, Standard Life Aberdeen, HSBC, M&G, and Aviva Investors [93–100].

4.3. Proposed Metrics and KPIs for Macro Stewardship

To effectively assess, record, and evaluate the efficiency and effectiveness of Ma-S practices by individual investment institutions, several key performance indicators (KPIs) are proposed.

The first set of proposed KPIs has to do with policy influence and effects on SDG changes. Proposed measures include tracking the number of policy changes influenced by the institution's efforts, evaluating the quality and impact of these changes on sustainability goals, and monitoring the frequency of engagement with policymakers. Measuring contributions to specific SDGs like climate action (SDG 13), responsible consumption and production (SDG 12), and reduced inequalities (SDG 10), alongside tracking relevant SDG metrics.

Table 2. Initiatives supported or participated in by companies engaged in Macro Stewardship.

• 30% Club Investor Chapters—UK, Japan, France, Germany • Access to Nutrition Initiative (ATNI) • Aldersgate Group • Access to Medicine Foundation (ATMF) • Asian Corporate Governance Association (ACGA) • Asia Investor Group of Climate Change (AIGCC) • Asia Research & Engagement (ARE) • Australasian Centre for Corporate Responsibility (ACCR) • Better Buildings Partnership (BBP) • British Council for Offices ESG committee • Business for Nature • Carbon Disclosure Project (CDP) • Ceres • China Climate Engagement Initiative (CCEI) • Climate Action 100+ • Climate Financial Risk Forum (CFRF) • Climate Impact Partners • Coalition for Climate Resilient Investment (CCRI) • Corporate Governance Forum • Council of Institutional Investors (CII) • Deforestation Free Finance • Environmental Defence Fund (EDF) • European Fund and Asset Management Association • European Leveraged Finance Association (ELFA) • European Association for Investors in Non-Listed Real Estate Vehicles (INREV) • FAIRR Initiative • Farm Animal Investment Risk • Finance for Biodiversity Pledge • Financial Sector Deforestation Action (FSDA) • The Financing a Just Transition Alliance • GC100 + Investor Group • Glasgow Financial Alliance for Net Zero (GFANZ) • Global Real Estate Sustainability Benchmark (GRESB) • Green Finance Institute—Coalition for the Energy Efficiency of Buildings • Investors in Financial Reporting Programme (IASB)	• Institute for Public Policy Research (IPPR) • Institutional Investors Group on Climate Change (IIGCC) • IC International (iCI) • Interfaith Center on Corporate Responsibility (ICCR) • International Corporate Governance Network (ICGN) • International Capital Market Association (ICMA) • The Investment Association (AI) • The Investor Forum • The Investors Against Slavery and Trafficking Asia Pacific (IAST APAC) • Investor Policy Dialogue on Deforestation (IPDD) • ISSB Investor Advisory Group • Japan Climate Leaders' Partnership (JCLP) • Japan Stewardship Initiative (JSI) • Japan TCFD Consortium • Midwest Investors Diversity Initiative (MIDI) • Mansion House Compact • Nature Action 100 • Natural Capital Investment Alliance (NCIA) • Net Zero Engagement initiative • Operating Principles for Impact Management • Race to Zero • RE100 • Science Based Targets Initiative (SBTi) • Net Zero Asset Managers Initiative (NZAM) • Partnership for Carbon Accounting Financials (PCAF) • Powering Past Coal Alliance (PPCA) • OECD • SBTi • ShareAction • The Green Bond Principle • The Shareholder Commons • Sustainability Reporting Standard for Social Housing • Taskforce on Nature-related Financial Disclosures (TNFD) • Task Force on Climate-related Financial Disclosures (TCFD) • Transition Pathway Initiative (TPI) • Terra Carta • UK Green Building Council (UKGBC) • UN Global Compact • Valuing Water Finance Initiative • United Nations Principles for Responsible Investment (UN PRI) • WWF and Emerging Market Investor Alliance • Oilit Deforestation
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Another possible set of KPIs could be changes in contributors, such as carbon footprint reduction, job creation, community development, and improvements in human rights and labor standards. This could be measured by tracking emissions reduction targets and the percentage of investments in renewable energy and low-carbon technologies and through social impact evaluations in each category.

The next set of proposed KPIs has to do with direct engagement and stakeholders. This could be done by measuring the number of engagements with stakeholders and the

number of partnerships formed. Also, directly surveying the stakeholders will help assess their trust and perception.

Finally, analyzing budget allocation and the extent of staff training in sustainability and the practice of Ma-S could help with tracking the efficiency of Ma-S as a practice. Implementing some or all of these KPIs will provide a comprehensive framework to assess, record, and evaluate the effectiveness and efficiency of Ma-S practices, ensuring that institutional investors can effectively engage with policymakers to achieve sustainability goals.

5. Areas of Suggested Research

To further develop the concept of Ma-S and enhance its practical application, several areas of research are essential. More independent, peer-reviewed analysis is needed to establish the legitimacy and acceptance of the concept of Ma-S, its efficiency, effectiveness, accountability, and role in a well-functioning democracy.

More research is needed to understand the role of collective action problems compared to systemic market failures and how Ma-S might help address these challenges. This research could explore how Ma-S could work alongside existing frameworks, such as Ostrom's ideas on collective action and managing shared resources.

Additional research to develop robust methodologies for assessing the impact of Ma-S initiatives on both sustainability outcomes and the financial performance of a practicing institution is also required. This includes the creation of metrics and frameworks that can quantify the benefits of policy advocacy, multi-stakeholder collaboration, and innovation support. Investigating the most effective incentive structures that align the interests of financial institutions with long-term sustainability goals is crucial; this involves exploring new compensation models, performance metrics, and regulatory frameworks that encourage sustainable practices.

Additionally, studying the dynamics of stakeholder engagement in Ma-S is vital to identifying best practices for collaboration between financial institutions, governments, NGOs, and other key influencers. It's also important to understand the barriers and enablers to effective multi-stakeholder engagement. Examining the role of financial institutions in shaping public policy, including case studies of successful and unsuccessful policy advocacy efforts, can provide insights into strategies and conditions that enable effective influence on sustainability-related policies. Conducting comparative studies of different regions and sectors is necessary to identify how Ma-S can be tailored to specific contexts, understanding the variations in market failures and stakeholder dynamics to design context-specific Ma-S strategies. Further, studying the dynamics and tensions within an organization is also important. Finally, implementing long-term studies to track the evolution and impact of Ma-S initiatives over time will provide valuable data on the sustainability impacts and financial performance of Ma-S, helping to refine the approach and demonstrate its value.

To guide this emerging area of research and clarify the direction of inquiry, the following research questions are proposed for future studies:

- What mechanisms and tools can financial institutions implement to effectively practice Ma-S?
- What Key Performance Indicators (KPIs) can be used to measure the effectiveness and efficiency of Ma-S?
- How effective and efficient is Ma-S for financial system stability and sustainability?
- How can Ma-S implement Elinor Ostrom's ideas to help manage challenges like climate change or financial stability?
- What conditions (institutional, regulatory, and cultural) are necessary to practice effective Ma-S and to deliver transformative change in sustainable finance?

- How can universal ownership theory be implemented to encourage investors to participate in Ma-S?
- How can the concept of fiduciary duty be redefined to motivate investors to practice Ma-S?
- What incentive structures and performance metrics can help financial institutions focus on long-term sustainability for the whole system?
- How do financial institutions shape public policy through Ma-S, and what approaches work or don't work in pushing for sustainability-focused regulation?
- How do institutional investors use non-market and social movement strategies within macro stewardship to influence systemic change in financial markets and sustainability outcomes?

These questions offer valuable direction for future empirical research and theoretical development. Upcoming studies could investigate the mechanisms, impacts, and implementation strategies of Ma-S, using detailed case studies and in-depth analysis to build on the foundational concepts outlined in this paper.

To better understand the nature of Ma-S, a range of research methods can be applied. For example, qualitative approaches—such as case studies, expert interviews, and document analysis—can uncover the dynamics between stakeholders, organizational processes, and everyday practices. Semi-structured interviews are especially useful for exposing internal and external power dynamics, revealing stakeholder motivations, potential barriers, and definitions of success, failure, and legitimacy.

To assess the effectiveness of Ma-S, mixed-methods research can be used. Quantitative tools like regression analysis and longitudinal studies can help identify links between Ma-S practices and financial or sustainability outcomes. In addition, surveys and experimental designs can explore how incentive structures, geographic context, and differing institutional cultures influence perceptions and impact. Together, these methods can generate a comprehensive understanding of how Ma-S functions and where its greatest potential lies.

6. Policy Recommendations

To support the implementation of Ma-S and ensure its effectiveness, policymakers can take several integrated actions. Firstly, to encourage broader adaptation and implementation of Ma-S by investors regulators could include Ma-S principles in the next iteration of the Stewardship Code (e.g., UK Stewardship Code).

There is currently no formal, collaborative platform—like a “Finance General Assembly” where investors, policymakers, and regulators can come together to discuss market integrity and structure. Regulators could help establish such a platform to promote collaboration and strengthen market integrity.

Regulators can also incentivize the financial industry to better align with Ma-S goals. This could include encouraging regulators, investment consultants, and asset owners to prioritize and demand effective Ma-S practices.

The incentives should also be adjusted for sustainable vs. unsustainable practices by using mandatory disclosures of ESG risks, tax incentives for green investments, and stricter penalties for environmental violations. Policies that incentivize long-term investment horizons over short-term gains are necessary. These could include tax benefits for long-term investments in sustainable projects, reforms in executive compensation to reward long-term performance, and the promotion of stewardship codes emphasizing sustainability. Increased public funding for research and innovation in sustainability is also vital. Governments should partner with financial institutions to co-fund research projects, provide grants for green technology development, and support pilot projects that test new sustainability solutions.

Moreover, education and training programs for financial professionals on sustainability issues and the principles of Ma-S should be developed to build the necessary expertise within financial institutions.

Finally, enhancing public accountability through transparent reporting requirements and regular evaluations of the impact on sustainability goals is essential for maintaining public trust and ensuring that Ma-S efforts genuinely contribute to sustainable development.

7. Conclusions

This research paper presents Ma-S as a transformative approach in sustainable finance, aimed at addressing collective action problems and systemic market failures through the active engagement of financial institutions with various stakeholders. By engaging in advocacy, policy reforms, and collaborative initiatives, financial institutions can significantly contribute to achieving the UN SDGs and other sustainability objectives. Unlike traditional models that focus on company-specific or portfolio-wide impacts, Ma-S includes systemic interventions necessary for long-term sustainability.

Our research highlights the importance of practicing Ma-S due to its collaborative approach and potential to correct market failures that lead to environmental degradation, social inequities, and economic instability. Financial institutions, given their significant influence and resources, are uniquely positioned to drive structural changes by advocating for regulatory reforms, supporting sustainable innovation, and fostering multi-stakeholder collaborations. This engagement helps create a regulatory environment that supports sustainability, promotes responsible business practices, and aligns investment strategies with long-term societal goals.

The work demonstrates empirical examples from Aviva Investors, LGIM, and Schroders to show that Ma-S is already operational in practice, albeit inconsistently and without clear definitions or metrics. By proposing a working definition and practical KPIs, this paper offers a conceptual framework and a call to action for both researchers and practitioners to develop and evaluate Ma-S as a core function of sustainable finance.

Our analysis also proposes several challenges in implementing Ma-S. Aligning short-term profitability with long-term sustainability can create tensions within financial institutions. Smaller firms may lack the capacity and expertise for effective policy engagement, and there is a risk of regulatory capture, where large investors influence policies to their advantage rather than the public good. Additionally, the absence of clear metrics and KPIs makes it difficult to quantify the impact of Ma-S initiatives and demonstrate its advantage internally and externally.

Despite these challenges, our research underscores the substantial benefits of Ma-S. By addressing systemic risks and market failures, Ma-S can lead to more resilient economic systems, reduced environmental degradation, and improved social outcomes. Financial institutions practicing Ma-S can build stronger reputations and trust with stakeholders, gaining competitive advantages.

To support the implementation of Ma-S, this paper recommends that policymakers provide regulatory support for stakeholder engagement, establish collaboration platforms, incentivize long-term investments, and enhance public accountability through transparent reporting. Additionally, education and training programs for financial professionals on sustainability issues and engagement are crucial to building the necessary expertise within financial institutions.

This study contributes to the literature by offering a new conceptualization of stewardship—Macro Stewardship. This framework shifts the focus from firm-level engagement (micro stewardship) to systemic influence. Drawing from theories of collective action, market failure, and universal ownership, it develops a comprehensive framework for

understanding how financial institutions can act as agents of systemic change. It combines theoretical foundations, identifies practical mechanisms, and presents empirical examples that illustrate how Ma-S operates in practice. By bringing these parts together, the analysis shows a clearer way forward for researchers and professionals, highlighting that Ma-S is key to reaching long-term sustainability goals in finance. In conclusion, the adoption and effective practice of Ma-S could play a pivotal role in transforming financial markets to support global sustainability efforts.

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References

1. Bolton, P.; Despres, M.; da Silva, L.A.P.; Samama, F.; Svartzman, R. The Green Swan. In *BIS Books*; Bank for International Settlements: Basel, Switzerland, 2020.
2. Ledyard, J.O. Market Failure. In *Allocation, Information and Markets*; Eatwell, J., Milgate, M., Newman, P., Eds.; Palgrave Macmillan UK: London, UK, 1989; pp. 185–190, ISBN 978-1-349-20215-7.
3. Stern, N. *The Economics of Climate Change: The Stern Review*; Cambridge University Press: Cambridge, UK, 2007; ISBN 978-1-139-93642-2.
4. Kay, J. Kay Review of UK Equity Markets and Long-Term Decision Making. Available online: <https://www.gov.uk/government/consultations/the-kay-review-of-uk-equity-markets-and-long-term-decision-making> (accessed on 28 November 2024).
5. Carney, M. Breaking the Tragedy of the Horizon—Climate Change and Financial Stability—Speech by Mark Carney. Available online: <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability> (accessed on 4 December 2024).
6. Carney, M. *The World Needs a New, Sustainable Financial System to Stop Runaway Climate Change*; International Monetary Fund: Washington, DC, USA, 2019.

7. Aggarwal, R. Animal Spirits in Financial Economics: A Review of Deviations from Economic Rationality. *Int. Rev. Financ. Anal.* **2014**, *32*, 179–187. [CrossRef]
8. Lin, E.M.H.; Sun, E.W.; Yu, M.-T. Systemic Risk, Financial Markets, and Performance of Financial Institutions. *Ann. Oper. Res.* **2018**, *262*, 579–603. [CrossRef]
9. Venturini, A. Climate Change, Risk Factors and Stock Returns: A Review of the Literature. *Int. Rev. Financ. Anal.* **2022**, *79*, 101934. [CrossRef]
10. Nier, E.; Yang, J.; Yorulmazer, T.; Alentorn, A. Network Models and Financial Stability. *J. Econ. Dyn. Control.* **2007**, *31*, 2033–2060. [CrossRef]
11. Promoting Global Financial Stability: 2024 FSB Annual Report. Available online: <https://www.fsb.org/2024/11/promoting-global-financial-stability-2024-fsb-annual-report/> (accessed on 6 December 2024).
12. Mazzucato, M.; Perez, C. *Chapter 3: Redirecting Growth: Inclusive, Sustainable and Innovation-Led*; Edward Elgar Publishing: Cheltenham, UK, 2023; pp. 71–106.
13. Stiglitz, J.E. *Freefall: America, Free Markets, and the Sinking of the World Economy*; W.W. Norton & Company: New York, NY, USA, 2010.
14. Rajan, R.G. Has Finance Made the World Riskier? *Euro. Fin. Manag.* **2006**, *12*, 499–533. [CrossRef]
15. Dietz, S.; Bowen, A.; Dixon, C.; Gradwell, P. ‘Climate Value at Risk’ of Global Financial Assets. *Nat. Clim. Change* **2016**, *6*, 676–679. [CrossRef]
16. Bank of England. *The Impact of Climate Change on the UK Insurance Sector: A Climate Change Adaptation Report by the Prudential Regulation Authority*; Bank of England: London, UK, 2015.
17. TCFD. *Recommendations of the Task Force on Climate-Related Financial Disclosures*; Bank for International Settlements: Basel, Switzerland, 2017.
18. Taylor, T. *Evolving Market Integrity in Sustainable Investment*; Fitzwilliam College: Cambridge, UK, 2024.
19. Waygood, S. Macro Stewardship: An Introduction and A Tragedy of Perception. In *AIQ: The Macro Stewardship Edition*; Aviva Investors: Luxembourg, 2024. Available online: <https://www.avivainvestors.com/aiq> (accessed on 4 December 2024).
20. Steve Waygood AIQ: The Macro Stewardship Edition. Available online: <https://www.avivainvestors.com/en-gb/views/aiq-macro-stewardship/> (accessed on 4 December 2024).
21. ESG Materiality Assessment. Available online: <https://about.bankofamerica.com/en/making-an-impact/materiality> (accessed on 9 December 2024).
22. InfluenceMap Sustainable Finance Policy Engagement. Available online: <https://influencemap.org/report/Sustainable-Finance-Policy-Engagement-ae2640f0ab05a86c3a53359b0c5a3057> (accessed on 9 December 2024).
23. Legal & General Investment Management (LGIM). Climate Impact Pledge: Moving the Needle on Net Zero. 2024. Available online: <https://www.lgim.com/uk/en/responsible-investing/climate-impact-pledge/> (accessed on 9 December 2024).
24. Watts, J. *Senators Accuse JPMorgan’s Jamie Dimon of Backtracking on Climate Commitments*; The Guardian: London, UK, 2024.
25. Gandel, S. *Citi and BofA Exit UN-Backed Global Climate Alliance for Banks*; Financial Times: London, UK, 2025.
26. Smith, A. *The Theory of Moral Sentiments*; Raphael, D.D., Macfie, A.L., Eds.; Liberty Press: Indianapolis, IN, USA, 1759.
27. Fama, E.F. Efficient Capital Markets: A Review of Theory and Empirical Work. *J. Financ.* **1970**, *25*, 383–417. [CrossRef]
28. Hayek, F.A. The Use of Knowledge in Society. *Am. Econ. Rev.* **1945**, *35*, 519–530.
29. Friedman, M. *Capitalism and Freedom: Fortieth Anniversary Edition*; University of Chicago Press: Chicago, IL, USA, 1912; ISBN 978-0-226-26421-9.
30. Croson, R.; Treich, N. Behavioral Environmental Economics: Promises and Challenges. *Environ. Resource Econ.* **2014**, *58*, 335–351. [CrossRef]
31. Carlsson, F.; Johansson-Stenman, O. Behavioral Economics and Environmental Policy. *Annu. Rev. Resour. Econ.* **2012**, *4*, 75–99.
32. Sullivan, R. *Fiduciary Duty in the 21st Century*; United Nations Environment Programme: Nairobi, Kenya, 2015.
33. Fiduciary Duty in the 21st Century Final Report. 22 October 2019. Available online: <https://www.unpri.org/fiduciary-duty/fiduciary-duty-in-the-21st-century-final-report/4998.article> (accessed on 6 December 2024).
34. Katelouzou, D.; Puchniak, D.W. (Eds.) *Global Shareholder Stewardship*; Cambridge University Press: Cambridge, UK, 2022; ISBN 978-1-108-84310-2.
35. Federal Office for Spatial Development ARE. 1987: Brundtland Report. Available online: <https://www.aren.admin.ch/aren/en/home/medien-und-publikationen/publikationen/nachhaltige-entwicklung/brundtland-report.html> (accessed on 9 January 2025).
36. Olson, M. *The Logic of Collective Action: Public Goods and the Theory of Groups, Second Printing with a New Preface and Appendix*; Harvard University Press: Cambridge, MA, USA, 1971; ISBN 978-0-674-53750-7.
37. Hardin, G. The Tragedy of the Commons. *Science* **1968**, *162*, 1243–1248. [CrossRef] [PubMed]
38. Ostrom, E. *Governing the Commons: The Evolution of Institutions for Collective Action*; Cambridge University Press: Cambridge, UK, 1990; ISBN 978-1-139-64299-6.
39. Dietz, T.; Ostrom, E.; Stern, P.C. The Struggle to Govern the Commons. *Science* **2003**, *302*, 1907–1912. [CrossRef]

40. Agrawal, A. Sustainable Governance of Common-Pool Resources: Context, Methods, and Politics. *Annu. Rev. Anthropol.* **2003**, *20*, 243–262. [CrossRef]
41. Baland, J.-M.; Platteau, J.-P. *Inequality and Collective Action in the Commons*; Routledge: London, UK, 1996.
42. Shirky, C. *Here Comes Everybody: The Power of Organizing Without Organizations*; Penguin Press: New York, NY, USA, 2008; ISBN 978-1-59420-153-0.
43. Falkner, R. The Paris Agreement and the New Logic of International Climate Politics. *Int. Aff.* **2016**, *92*, 1107–1125. [CrossRef]
44. Gjølberg, M. Explaining Regulatory Preferences: CSR, Soft Law, or Hard Law? Insights from a Survey of Nordic Pioneers in CSR. *Bus. Politics* **2011**, *13*, 1–31. [CrossRef]
45. Friede, G.; Busch, T.; Bassen, A. ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies. *J. Sustain. Financ. Investig.* **2015**, *5*, 210–233. [CrossRef]
46. Edmans, A. The End of ESG. *Financ. Manag.* **2023**, *52*, 3–17. [CrossRef]
47. Holmström, B.; Tirole, J. Market Liquidity and Performance Monitoring. *J. Political Econ.* **1993**, *101*, 678–709. [CrossRef]
48. Black, B.S. Agents Watching Agents: The Promise of Institutional Investor Voice. *UCLA Law Rev.* **1992**, *39*, 811–893.
49. Heuser, M. *Shareholder Activism: Aktienrechtliche Schranken für Anteilseigneraktivismus*; Abhandlungen zum Deutschen und Europäischen Handels- und Wirtschaftsrecht; C. Heymanns: Ghent, Belgium, 2012.
50. Tilba, A.; McNulty, T. Engaged versus Disengaged Ownership: The Case of Pension Funds in the UK. *Corp. Gov. Int. Rev.* **2013**, *21*, 165–182. [CrossRef]
51. The Myners Report. Available online: <https://www.icaew.com/technical/corporate-governance/codes-and-reports/myners-report> (accessed on 11 December 2024).
52. Pfeifer, S.; Sullivan, R. Public Policy, Institutional Investors and Climate Change: A UK Case-Study. *Clim. Change* **2008**, *89*, 245–262. [CrossRef]
53. Robins, N. Shaping the Market: Investor Engagement in Public Policy. In *Responsible Investment*; Routledge: London, UK, 2006; ISBN 978-1-351-28344-1.
54. Hill, J.M.; Gambaccini, J.S. The Private Equity Paradox: When Is Too Much Control a Bad Thing? *J. Priv. Equity* **2003**, *6*, 37–40.
55. Code of Ethics and Standards of Conduct | CFP Board. Available online: <https://www.cfp.net/ethics/code-of-ethics-and-standards-of-conduct> (accessed on 6 December 2024).
56. Huizenga Opens Inquiry into How Asset Managers Fulfill Their Fiduciary Responsibility. Available online: <https://huizenga.house.gov/news/documentsingle.aspx?DocumentID=402668> (accessed on 11 December 2024).
57. SEC.Gov | Interpretation of Section 206(3) of the Investment Advisers Act of 1940. Available online: <https://www.sec.gov/rules-regulations/1998/07/interpretation-section-2063-investment-advisers-act-1940> (accessed on 11 December 2024).
58. Eccles, R.G.; Klimenko, S. The Investor Revolution: Shareholders Are Getting Serious about Sustainability. *Harv. Bus. Rev. HBR* **2019**, *97*, 106–116.
59. Choi, S.J.; Fisch, J.E. On beyond calpers: Survey evidence on the developing role of public pension funds in corporate governance. *Vanderbilt Law Rev.* **2008**, *61*, 315–354.
60. Enriques, L.; Romano, A. Institutional investor voting behavior: Network theory perspective. *Univ. Ill. Law Rev.* **2019**, *2019*, 223–268.
61. Alvaro, S.; Maugeri, M.; Strampelli, G. *Institutional Investors Corporate Governance and Stewardship Codes*; CONSOB: Rome, Italy, 2019.
62. Lund, D.S. *Passive Investing and Corporate Governance: A Law and Economics Analysis*; Edward Elgar Publishing Limited: Cheltenham, UK, 2020.
63. Lund, D.S. Asset Managers as Regulators. *Univ. Pa. Law Rev.* **2021**, *171*, 77–146.
64. Yamahaki, C.; Marchewitz, C. Collaborative Investor Engagement with Policymakers: Changing the Rules of the Game? *Qual. Res. Financ. Mark.* **2024**, ahead-of-print. [CrossRef]
65. Citi. *SYSTEMIC RISK: Systemic Solutions for an Increasingly Interconnected World*; Citi: New York, NY, USA, 2021.
66. Hawley, J.; Williams, A. The Emergence of Universal Owners: Some Implications of Institutional Equity Ownership. *Challenge* **2000**, *43*, 43–61.
67. Urwin, R. Pension Funds as Universal Owners: Opportunity Beckons and Leadership Calls. *Rotman Int. J. Pension Manag.* **2011**, *4*, 26–33.
68. Gjessing, O.P.K.; Syse, H. Norwegian Petroleum Wealth and Universal Ownership. *Corp. Gov. Int. Rev.* **2007**, *15*, 427–437. [CrossRef]
69. Quigley, E. Universal Ownership and the Polycrisis: Social Norms, Feedback Loops, and the Double Hermeneutic 2020. In Proceedings of the 2023 Annual Conference, Annual Conference, Hong Kong, China, 9 September 2023.
70. Hawley, J.; Williams, A. The Universal Owner’s Role in Sustainable Economic Development. *Corp. Environ. Strategy* **2002**, *9*, 284–291. [CrossRef]
71. Juravle, C.; Lewis, A. Identifying Impediments to SRI in Europe: A Review of the Practitioner and Academic Literature. *Bus. Ethics A Eur. Rev.* **2008**, *17*, 285–310. [CrossRef]

72. Hansen, T.; Pollin, R. Economics and Climate Justice Activism: Assessing the Financial Impact of the Fossil Fuel Divestment Movement. *Rev. Soc. Econ.* **2022**, *80*, 423–460.
73. Hillman, A.J.; Hitt, M.A. Corporate Political Strategy Formulation: A Model of Approach, Participation, and Strategy Decisions. *Acad. Manag. Rev.* **1999**, *24*, 825–842. [\[CrossRef\]](#)
74. Lux, S.; Crook, T.; Woehr, D. Mixing Business with Politics: A Meta-Analysis of the Antecedents and Outcomes of Corporate Political Activity. *J. Manag.* **2011**, *37*, 223–247. [\[CrossRef\]](#)
75. Mosley, J.E. Institutionalization, Privatization, and Political Opportunity: What Tactical Choices Reveal About the Policy Advocacy of Human Service Nonprofits. *Nonprofit Volunt. Sect. Q.* **2011**, *40*, 435–457. [\[CrossRef\]](#)
76. Mialon, M.; Crosbie, E.; Sacks, G. Mapping of Food Industry Strategies to Influence Public Health Policy, Research and Practice in South Africa. *Int. J. Public Health* **2020**, *65*, 1027–1036. [\[CrossRef\]](#)
77. Thomas, S.L.; David, J.; Randle, M.; Daube, M.; Senior, K. Gambling Advocacy: Lessons from Tobacco, Alcohol and Junk Food. *Aust. N. Z. J. Public Health* **2016**, *40*, 211–217. [\[CrossRef\]](#)
78. Weible, C.M.; Heikkilä, T.; deLeon, P.; Sabatier, P.A. Understanding and Influencing the Policy Process. *Policy Sci.* **2012**, *45*, 1–21. [\[CrossRef\]](#)
79. Bennett, S.; Corluka, A.; Doherty, J.; Tangcharoensathien, V.; Patcharanarumol, W.; Jesani, A.; Kyabaggu, J.; Namaganda, G.; Hussain, A.M.Z.; de-Graft Aikins, A. Influencing Policy Change: The Experience of Health Think Tanks in Low- and Middle-Income Countries. *Health Policy Plan.* **2012**, *27*, 194–203. [\[CrossRef\]](#)
80. Irwin, D. Building the Capacity of Business Associations in Developing Countries to Influence Public Policy. *Int. Groups Adv.* **2015**, *4*, 185–204. [\[CrossRef\]](#)
81. Walker, D. *A Review of Corporate Governance in UK Banks and Other Financial Industry Entities*; The Harvard Law School Forum on Corporate Governance: Cambridge, MA, USA, 2009.
82. Attfeld, R. Stewardship. In *Encyclopedia of Global Bioethics*; Springer: Berlin/Heidelberg, Germany, 2016; pp. 2696–2705, ISBN 978-3-319-09482-3.
83. Attfeld, R. *Environmental Ethics: An Overview for the Twenty-First Century*; Polity Press: Cambridge, UK, 2003.
84. Cooper, D.E.; Palmer, J.A. (Eds.) *Environment in Question*; Routledge: London, UK, 2005; ISBN 978-0-203-98442-0.
85. About Stewardship. Available online: <https://www.unpri.org/stewardship/about-stewardship/6268.article> (accessed on 11 December 2024).
86. UK Stewardship Code. Available online: <https://www.frc.org.uk/library/standards-codes-policy/stewardship/uk-stewardship-code/> (accessed on 11 December 2024).
87. The Role of Investors in Supporting Better Corporate ESG Performance. Available online: <https://www.ceres.org/resources/reports/role-investors-supporting-better-corporate-esg-performance> (accessed on 11 December 2024).
88. Çelik, S.; Isaksson, M. Institutional Investors and Ownership Engagement. *OECD J. Financ. Mark. Trends* **2014**, *2013*, 93–114. [\[CrossRef\]](#)
89. Pacelli, V. *Systemic Risk and Complex Networks in Modern Financial Systems*; Pacelli, V., Ed.; Springer Nature: Cham, Switzerland, 2025; pp. 3–19, ISBN 978-3-031-64916-5.
90. Reporting Framework Glossary. Available online: <https://www.unpri.org/reporting-and-assessment/reporting-framework-glossary/6937.article> (accessed on 11 December 2024).
91. Burckart, W.; Lydenberg, S. *21st Century Investing: Redirecting Financial Strategies to Drive Systems Change*; Berrett-Koehler Publishers: Oakland, CA, USA, 2021; ISBN 978-1-5230-9107-2.
92. High-Level Expert Group on Sustainable Finance (HLEG)—European Commission. Available online: https://finance.ec.europa.eu/publications/high-level-expert-group-sustainable-finance-hleg_en (accessed on 2 April 2025).
93. LGIM View Investment Stewardship. Available online: <https://am.landg.com/en-uk/institutional/responsible-investing/investment-stewardship/> (accessed on 31 March 2025).
94. Schroders. Stewardship Code Statement 2022. Available online: <https://www.schroders.com/en/global/individual/corporate-transparency/reporting/reports-archive/> (accessed on 31 March 2025).
95. ESG at PGIM Fixed Income. Available online: https://www.pgim.com/fixed-income/environmental-social-governance?infinity=ict2~net~mac~ar~76966013571199~kr~76966031798938~kw~fixed%20income%20esg~mt~p~cmp~PGIM%20Fixed%20Income_B2B_Unkwn_Investment_Capabilities_Non%20Brand_Phrase_UK~ag~FI%20-%20ESG&utm_medium=cpc&utm_source=MICROSOFT&utm_campaign=PGIM%20Fixed%20Income_B2B_Unkwn_Investment_Capabilities_Non%20Brand_Phrase_UK&ds_cid=71700000079954600&utm_content=FI%20-%20ESG&ds_agid=58700006712263158&utm_term=fixed%20income%20esg&ds_kid=43700068667399865&matchtype=p&network=o&bidmatchtype=bp&querystring=PGIM%20Fixed%20Income%20ESG%20Research%20report,%20esg%20annual%20report%202021&msclkid=d87532102c3e17917b0b55fa5ee93f15&gclid=d87532102c3e17917b0b55fa5ee93f15&gclsrc=3p.ds (accessed on 31 March 2025).
96. Sustainability Resources and Reporting Hub. Available online: <https://www.aviva.com/sustainability/resources-and-reporting-hub/> (accessed on 31 March 2025).

97. Sustainability Document Library | Aberdeen Group Plc. Available online: <https://www.aberdeenplc.com/en-gb/corporate-sustainability/document-library> (accessed on 31 March 2025).
98. Stewardship | HSBC Asset Management. Available online: <https://www.assetmanagement.hsbc.com/about-us/responsible-investing/stewardship> (accessed on 31 March 2025).
99. Responsible Investing at M&G Investments. Available online: <http://www.mandg.com/who-we-are/mandg-investments/responsible-investing-at-mandg-investments> (accessed on 31 March 2025).
100. UK_FI Engagement Pies_05-24. Available online: <http://ceros.insightinvestment.com/fi-engagement-pies-2> (accessed on 31 March 2025).

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