

Article

Liquid Equity Rewards in Corporate America

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Abstract

This article examines Liquid Equity Rewards (LERs), a proposed blockchain-enabled mechanism designed to provide shareholders with time-weighted, utility-only incentives as a potential tool for improving corporate governance. LERs employ a dual architecture comprising voucher-based rewards for off-chain equities and programmable on-chain units for tokenized stocks to encourage shareholder retention amid proxy battles, activist challenges, and corporate political complexities. Drawing on NASDAQ's tokenized stock framework, stablecoin infrastructure, and DeFi liquid staking principles, this article develops a conceptual and normative framework for LERs and evaluates its potential effectiveness relative to conventional defenses such as poison pills. The analysis assesses LER's plausible legal compatibility with Delaware corporation law, U.S. securities rules, and the EU's MiCA framework, while acknowledging that definitive legal conclusions require case-specific adjudication and future regulatory interpretation. The article advances four testable hypotheses regarding LER's potential to mitigate stock price volatility, reduce activist success rates, and address ESG, M&A, and political expenditure disputes in a market context shaped by shareholder activism. The proxy-fight context is the principal application; ESG, M&A, political-spending, and executive-compensation contexts are discussed as illustrative extensions of the framework rather than as equally mature use cases. A comparative evaluation against existing governance mechanisms and a cost-benefit analysis suggest that LER's governance enhancements and market opportunities may outweigh implementation challenges, subject to empirical validation. This article contributes a structured analytical framework and identifies conditions under which LERs could offer a scalable, transparent alternative that fosters stakeholder alignment.

Keywords: blockchain; tokenization; shareholder activism; proxy fights; corporate governance; fiduciary duties; airdrops; tokenized stocks; stablecoins; DeFi

JEL Classification: G34; K22; O31; O32; L86

Academic Editor: Maurizio Talamo

Received: 19 March 2026

Revised: 4 June 2026

Accepted: 25 June 2026

Published: 8 July 2026

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1. Introduction

Shareholder activism has emerged as one of the defining forces in contemporary corporate governance. Over the past three decades, activist campaigns have grown in frequency, sophistication, and financial scale, influencing corporate strategy across industries and jurisdictions [1]. Comprehensive surveys of the empirical literature document that activist interventions generate measurable effects on firm value, operating performance, and governance structure, though the direction and magnitude of these effects remain subjects of scholarly debate [2]. Institutional investors, in particular, have played

an increasingly prominent role in shaping governance outcomes through proxy proposals, engagement campaigns, and voting coalitions [3].

The mechanisms through which activists pursue governance changes have diversified considerably. Hedge fund activism, characterized by concentrated ownership stakes and aggressive strategic demands, has been the subject of extensive empirical investigation [4]. Historical analysis reveals that hedge fund activism has evolved through distinct phases, from early corporate raider tactics to contemporary campaigns emphasizing operational and strategic restructuring [5]. Forward-looking assessments suggest that activism will continue to intensify, driven by regulatory developments, technological innovation, and shifting capital allocation patterns [6]. Yet the net welfare effects of activism remain contested. Some studies identify significant value creation for target-firm shareholders [7], while others caution that short-term gains may come at the expense of long-term firm health and stakeholder welfare [8].

Conventional board defenses against activist campaigns, including poison pills, staggered boards, and advance notice bylaws, have drawn sustained criticism for their potential to entrench management at the expense of shareholder value [9]. Empirical analyses have demonstrated that firms with fewer defensive mechanisms often exhibit higher market valuations and stronger operating performance, supporting calls for dismantling entrenchment tactics [10]. Delaware courts have reinforced this scrutiny by applying enhanced standards under *Unocal* [11] and *Revlon* [12] that require defenses to be proportional and non-preclusive. The *Blasius* standard imposes even stricter scrutiny on actions that directly undermine shareholder voting rights, requiring a compelling justification [13].

Blockchain technology has introduced new possibilities for corporate governance infrastructure. Scholars have begun to examine how distributed ledger systems, smart contracts, and tokenization frameworks could reshape shareholder engagement, voting mechanisms, and governance transparency [14]. Research on the intersection of blockchain and shareholder activism has identified potential applications ranging from enhanced proxy voting to novel incentive structures [15]. These developments coincide with significant capital reallocation from fixed-income assets to equities and digital assets, a growing DeFi ecosystem, and regulatory frameworks such as the GENIUS Act [16] and the EU's MiCA regulation [17] that increasingly accommodate tokenized instruments.

This article introduces Liquid Equity Rewards (LERs), a proposed blockchain-enabled system that would distribute time-weighted, utility-only rewards to verified shareholders. Inspired by the convergence of stablecoin infrastructure, DeFi liquid staking retention mechanisms, and NASDAQ's tokenized stock framework [18], LER employs smart contracts to distribute consumptive utilities, such as merchant vouchers or platform credits, with the aim of fostering shareholder loyalty without imposing liquidity constraints. The article frames LERs as a conceptual and normative proposal, develops four testable hypotheses regarding its potential governance effects, provides a comparative evaluation against existing defense mechanisms, and assesses its plausible legal compatibility with Delaware fiduciary law, U.S. securities regulation, and international frameworks. By doing so, this article seeks to contribute a structured analytical framework for evaluating blockchain-enabled governance instruments and to identify the conditions under which LERs could function as a scalable complement to existing corporate governance tools.

2. Literature Review

2.1. Shareholder Activism: Empirical Foundations

The empirical literature on shareholder activism has matured considerably since the early studies of proxy contests. Denes, Karpoff, and McWilliams provide a comprehensive survey of thirty years of empirical research, documenting that activist interventions are associated with significant announcement returns, changes in target-firm governance, and

varying long-term performance effects depending on the form of activism and the institutional context [1]. Goranova and Ryan offer a multidisciplinary synthesis that integrates insights from finance, management, and organizational behavior, emphasizing that activism operates through multiple channels including proxy contests, private negotiations, and public campaigns [2].

Institutional investor engagement with corporate governance has been a subject of scholarly attention since at least the early 2000s. Gillan and Starks demonstrate that institutional investors play a critical role in governance proposal outcomes, with their voting behavior significantly influencing the likelihood of proposal adoption [3]. Klein and Zur extend this analysis to hedge funds and other private investors, finding that entrepreneurial activists generate positive abnormal returns but also face substantial opposition from incumbent management [4]. Cheffins and Armour provide a historical perspective, tracing hedge fund activism from its origins through its maturation as an established governance mechanism [5].

The value implications of activism remain contested. Clifford finds that hedge fund activism creates value for target-firm shareholders on average, particularly when activists acquire significant ownership stakes and pursue operational changes [7]. However, Bebchuk, Cohen, and Ferrell caution that the governance features most strongly associated with firm value are those that reduce management entrenchment, suggesting that the welfare effects of activism depend critically on its interaction with existing governance structures [8]. Hamdani and Hannes anticipate that future activism will increasingly employ technological tools and regulatory arbitrage, creating both opportunities and challenges for corporate governance design [6].

2.2. Blockchain Applications in Corporate Governance

A growing body of scholarship examines the potential for blockchain technology to transform corporate governance mechanisms. Lafarre and Van der Elst analyze how blockchain could enhance shareholder participation, reduce voting costs, and improve transparency in corporate decision-making [14]. Bernier examines the specific implications of blockchain for shareholder activism, arguing that distributed ledger systems could reduce information asymmetries between activists and incumbent management while enabling novel forms of shareholder coordination [15].

The broader infrastructure supporting blockchain-enabled governance has evolved rapidly. The emergence of tokenized equity frameworks, exemplified by NASDAQ's 2025 initiative [18], creates the technical foundation for programmable shareholder rewards. Stablecoin proliferation, with total market capitalization approaching \$290 billion by September 2025 [19,20], demonstrates the viability of blockchain-based value transfer at scale. DeFi liquid staking mechanisms, which have achieved a total value locked exceeding \$250 billion [21], provide operational precedents for retention-oriented incentive structures that reward continued participation without imposing asset lockups.

2.3. Customer Loyalty Economics: An Analogical Foundation

A separate strand of literature, developed in marketing and management research, supplies the analogical foundation for several quantitative projections in this article. Reichheld's work at Bain & Company on customer retention economics established that modest improvements in retention rates produce disproportionately large profitability effects, with a five percent increase in retention associated with profit gains of 25 to 95 percent depending on industry [22,23]. Reichheld and Sasser had earlier shown that loyal customers generate compounding economic value through reduced acquisition costs, higher transaction frequency, and increased referrals [23]. Subsequent industry research, summarized by Antavo's Global Customer Loyalty Report and Bain's loyalty practice,

finds that well-executed loyalty programs deliver mean returns of approximately 4.8 to 5.2 times their cost and that leading programs increase annual revenue from member cohorts by 15 to 25 percent [24]. These figures, although drawn from consumer rather than shareholder contexts, supply the empirical anchor for LER's projected retention effects discussed in Sections 6.1 and 9.2.

2.4. Synthesis and Position of LER

This literature establishes three premises for the present study. First, shareholder activism generates measurable governance effects but operates within a contested welfare framework, creating space for governance innovations that could align activist and incumbent incentives. Second, blockchain infrastructure has matured sufficiently to support programmable, transparent, and automated reward distribution mechanisms. Third, customer-loyalty economics supplies a quantitative reference point against which the magnitude of LER's plausible retention effects can be evaluated, while acknowledging the analogical limits of mapping consumer behavior onto shareholder behavior. The literature review situates LER as a novel mechanism within these well-developed empirical studies rather than as an isolated conceptual proposal. LER builds on these foundations by proposing a specific mechanism that integrates tokenized governance with established corporate law frameworks.

3. Hypotheses and Analytical Framework

The literature reviewed in Section 2 establishes three issues that recur across the empirical record on shareholder activism. The first is the elevated rate of activist success in contested elections, currently estimated at approximately 40 percent under the universal proxy regime [25], which reflects the difficulty incumbent boards face in mobilizing dispersed shareholder support. The second is the abnormal price volatility surrounding activist campaigns, documented in event studies summarized by Denes, Karpoff, and McWilliams [1] and elaborated in the institutional-investor literature [3,4]. The third is the persistent retail-shareholder coordination problem identified by Hamdani and Hannes [6] and amplified by the universal proxy card's candidate-by-candidate voting structure. Loyalty economics, as summarized in Section 2.3, supplies a calibrated benchmark for the magnitude of effect that retention-oriented incentives might be expected to produce in adjacent behavioral contexts. The four hypotheses below translate these three governance issues, against the loyalty-economics benchmark, into testable propositions about LER's plausible effects. They are intended to guide future empirical investigation and simulation-based testing rather than to report demonstrated findings.

Hypothesis 1 (Shareholder Retention): *LER's time-weighted, utility-only reward structure could reduce shareholder turnover among targeted holders, on a magnitude analogous to the retention effects documented in consumer loyalty programs that achieve 15 to 30 percent reductions in customer churn [22,24].*

Hypothesis 2 (Activist Success Moderation): *By incentivizing retention among passive retail and institutional shareholders, LER could reduce the success rate of activist proxy campaigns relative to baseline rates, which the empirical literature places at approximately 40 percent [25].*

Hypothesis 3 (Volatility Stabilization): *LER deployment during periods of activist-driven price volatility could stabilize stock ownership patterns and reduce the magnitude of abnormal price movements associated with activist campaigns.*

Hypothesis 4 (Regulatory Compatibility): *LER's utility-only, non-transferable reward design can be structured to satisfy the proportionality requirements of Delaware fiduciary law, avoid classification as a security under the Howey test, and qualify for regulatory exemptions under MiCA's non-transferable utility token provisions.*

3.1. Methodology

This article employs a conceptual-and-design methodology, an established mode of scholarship in law, information systems, and financial-technology research in which a novel mechanism is first specified, situated within governing law, and evaluated against incumbent alternatives before it is subjected to empirical or simulation-based testing. The sequencing is deliberate and methodologically principled rather than a deferral of empirical work. A mechanism whose legal admissibility, incentive structure, and comparative properties have not first been established cannot be the subject of a well-posed experiment, because the experimental design itself depends on the parameters, constraints, and admissible-action space that the conceptual stage defines. In the design-science tradition, artifact specification and ex ante evaluation against design objectives constitute a complete and self-contained research contribution; empirical demonstration is a distinct subsequent phase that tests the artifact under field or simulated conditions. Comparable conceptual-and-design contributions precede empirical validation throughout the literature on blockchain-enabled corporate governance and tokenized governance instruments. Accordingly, this article does not present results from pilot implementations, controlled experiments, or simulation runs, and it makes no claim to do so. It instead delivers three contributions that are complete on their own terms: a fully specified mechanism design, a doctrinal compatibility analysis across three regulatory regimes, and a structured comparative evaluation against existing defenses. The four hypotheses developed in Section 3 are the bridge to the empirical phase: they translate the conceptual claims into operationalized, falsifiable propositions, and Section 3.2 sets out the experimental design through which they are to be tested.

The quantitative projections presented in this article, including estimates regarding retention effects, activist success rate reductions, and market opportunity sizing, are derived through analogical extrapolation from consumer loyalty program data [22–24], DeFi ecosystem metrics [19–21], and industry reports [26–28]. These projections should be understood as illustrative estimates under specified assumptions rather than as empirically validated results. The article identifies the assumptions underlying each projection and notes the sensitivity of conclusions to those assumptions. Appendix A sets out the derivation methodology and parameter ranges in greater detail.

3.2. Empirical Research Design and Pre-Specification of Tests

The four hypotheses in Section 3 are framed for testing through a three-part empirical program. This section specifies that program ex ante, including population definitions, the treatment, the outcome measures, the identification strategy, and the falsification conditions for each hypothesis. The purpose is to fix the design before any data are observed, so that the eventual empirical study constitutes a confirmatory rather than an exploratory exercise and so that the present article's projections can be evaluated against a stated standard. Three complementary methods are specified because no single method can identify all four hypotheses under realistic data constraints.

Method one is agent-based simulation. A population of heterogeneous shareholder agents is instantiated with holding horizons, liquidity needs, and reward-sensitivity parameters drawn from distributions calibrated to the consumer-loyalty and retail-ownership literature reviewed in Section 2.3. Each agent faces a sequence of activist-campaign episodes and chooses, in each period, whether to hold or sell as a function of price pres-

sure, campaign salience, and accrued LER utility. The treatment is the presence or absence of the time-weighted, utility-only reward schedule specified in Section 4.1. The primary outcome for Hypothesis 1 is the change in the holding-period survival function of treated relative to untreated cohorts; for Hypothesis 3, the realized variance of simulated ownership and price paths over the campaign window. Simulation permits clean counterfactual comparison because the same agent population can be run with and without treatment under identical shocks, which is not possible in field data.

Method two is a game-theoretic equilibrium analysis of the proxy-contest subgame. The incumbent board, the activist, and a continuum of retail and institutional holders are modeled as players; the LER schedule enters each holder's payoff as a duration-contingent utility term. The object of interest is the comparative-statics relationship between LER magnitude and the equilibrium probability that the activist secures the votes required to prevail, which operationalizes Hypothesis 2. This method identifies the boundary conditions, in particular the reward magnitude at which retention incentives begin to function as impermissible vote-buying, that the doctrinal analysis in Sections 5.1 and 6.3 flags but cannot quantify. The falsification condition for Hypothesis 2 is the absence of a monotone decreasing relationship between reward magnitude and activist success probability over the admissible reward range.

Method three is a doctrinal stress test of Hypothesis 4. The non-transferable, utility-only reward design is evaluated against the Howey factors, the Unocal proportionality standard, the Blasius compelling-justification standard, and the MiCA non-transferable-utility-token exemption, under a structured set of adversarial fact patterns designed to probe the points at which the design would fail each test. This is empirical in the doctrinal sense that it tests the design against the actual decision rules courts and regulators apply, rather than against a stylized abstraction of them. The falsification condition is the identification of any plausible, non-pathological fact pattern under which the design, deployed as specified, would be characterized as a security, a disproportionate defense, or a vote-impairing measure.

For each hypothesis the design states in advance the data sources, the estimand, and the threshold at which the hypothesis would be rejected. The illustrative magnitudes reported in Sections 6, 7 and 9 and derived in Appendix A function within this program as calibration targets and prior expectations, not as findings. They define the effect sizes the confirmatory study is powered to detect. Reporting them *ex ante*, together with their derivation, is a feature of the pre-specification rather than a substitute for results: it exposes the article's quantitative claims to subsequent falsification on stated terms.

4. Liquid Equity Rewards: Mechanism Design

The financial landscape as of September 2025 reflects a significant reallocation of capital across asset classes, including from fixed-income instruments to equities, digital assets, and tokenized real-world assets [29]. U.S. Treasuries yielded an average of 2.5 to 3 percent from 2015 to 2025, producing near-zero or negative real returns after inflation, while the S&P 500 generated cumulative nominal returns exceeding 200 percent over the same period. This comparison is one of nominal returns and does not adjust for the substantial differences in volatility, drawdown risk, and downside exposure across these asset classes; it is presented as a description of capital-allocation patterns rather than as a risk-adjusted performance claim. Beyond traditional asset markets, the broader cryptocurrency market reached a total capitalization of roughly \$4.0 trillion in 2025, DeFi total value locked has grown to over \$250 billion, and stablecoins have risen to a combined market capitalization of approximately \$290 billion processing trillions of dollars in transfers monthly [19,20]. Tokenization of real-world assets, projected to exceed \$2 trillion by 2030 [27,28], extends this convergence into instruments that resemble traditional securi-

ties. This macroeconomic context underscores the increasing convergence of traditional finance and blockchain infrastructure and creates conditions in which programmable governance tools such as LERs could find practical application.

4.1. How LER Work

LER is designed as a two-tiered system that uses blockchain technology to deliver non-speculative, utility-only benefits to shareholders across both traditional (off-chain) and tokenized (on-chain) equities. For off-chain stocks, registered shareholders would receive digital or physical vouchers redeemable for common benefits such as platform credits or merchant discounts. On the on-chain side, LERs would expand upon NASDAQ's tokenized framework [18] to issue programmable, non-transferable reward units, structured as soulbound tokens (SBTs) anchored to specific wallet addresses.

Rewards would accrue over time based on holding durations such as 30-, 60-, or 90-day thresholds, encouraging extended ownership without imposing trading lockups. Smart contracts would automate distributions linked to verified ownership, while zero-knowledge proofs (ZKPs) would enable privacy-compliant verification. Dinari's FINRA-approved infrastructure and Avalanche-based Layer 1 platform [30,31] could facilitate programmatic orders, KYB compliance, and ownership verification through API integration, potentially accelerating LER deployment timelines.

4.1.1. The Nature of LERs

Three concrete categories define the substantive content of an LER. The first category is merchant vouchers redeemable for goods or services from contracted third-party merchants on terms analogous to gift cards or stored-value instruments. The second category is platform credits usable for the issuer's own goods, services, or fee discounts, which is the model already widespread in airline mileage, hotel-points, and brokerage cash-rebate programs. The third category is access rights to non-financial benefits such as priority customer service, premium content, branded experiences, or invitations to issuer-organized shareholder events. Each category is consumptive: the reward is extinguished upon redemption, has no secondary market by design, is non-transferable through the SBT architecture, and produces no entitlement to dividends, voting rights, capital appreciation, or other indicia of equity. Any monetary face value associated with vouchers is fixed at issuance and does not fluctuate with market conditions.

4.1.2. Funding and Provider Structure

Two provider models are available, each with distinct funding economics. Under the Independent Model, the issuing corporation directly bears the cost of LERs by funding voucher pools, platform credits, or access benefits from its own marketing or shareholder-relations budget. Under this model, LER expense is recognized upfront under U.S. GAAP (ASC 606) and IFRS 15 [32,33] in the same manner as marketing-program expenditure, thereby avoiding the deferred-revenue balance-sheet liabilities associated with traditional points-based loyalty programs. Under the Merchant Model, third-party merchant partners supply the underlying goods or services in exchange for the customer-acquisition value of access to a verified shareholder base. The issuer's direct cost under the Merchant Model is limited to platform integration, smart-contract operation, and any subsidization of merchant participation. Both models are feasible. The Merchant Model is expected to dominate at scale because it externalizes the marginal cost of each reward to merchants whose own customer-acquisition costs are typically higher than the wholesale value of the benefit they supply.

4.1.3. Cost Projection Methodology

The projected cost of \$0.01 to \$0.05 per holder per day is an illustrative estimate derived from analogical reference to per-member operating costs reported by mature consumer-loyalty programs and from the unit economics of merchant-funded reward distribution. The lower bound corresponds to predominantly merchant-funded programs where issuer costs are limited to platform operation; the upper bound corresponds to issuer-subsidized programs with richer reward content. For a firm with one million eligible shareholders, the estimated annual program cost falls in the range of approximately \$3.65 million to \$18.25 million, an order of magnitude consistent with marketing-program budgets at large public companies. The full derivation, parameter sensitivities, and sources are set out in Appendix A. As with all projections in this article, the estimate should be understood as an illustrative benchmark under stated assumptions rather than a predictive figure for any particular implementation.

4.2. Comparative Evaluation: LER Versus Existing Defenses

This section provides a structured comparison of LER's properties relative to the principal existing governance defense mechanisms. The comparison is organized around five dimensions: coerciveness, proportionality under Delaware law, securities classification risk, retention effect, and transparency.

Poison pills provide boards with the ability to dilute hostile acquirers' stakes but invite judicial challenge for disproportionality and risk entrenchment. Delaware courts have upheld poison pills only where they preserve shareholder choice without coercion [34]. By contrast, LER's universal, utility-focused reward distribution is designed to avoid the coercive and discriminatory features that expose poison pills to invalidation. Where poison pills operate by penalizing acquisition, LER operates by rewarding retention.

Advance notice bylaws impose procedural requirements on shareholder nominations that, while facially neutral, may effectively deter activist campaigns by creating compliance burdens. Delaware courts have struck down overly restrictive versions as preclusive of shareholder rights [35]. LER does not impose procedural barriers to nomination or voting; instead, it seeks to strengthen incumbent support through positive incentives. This structural difference suggests that LER is less likely to face preclusion challenges under Unocal analysis.

Negotiated settlements that grant activists board seats may resolve immediate conflicts but risk creating boardroom tensions and fragmenting governance authority. LER's incentive-alignment approach seeks to reduce the need for seat concessions by stabilizing shareholder support for the incumbent strategy, though the effectiveness of this substitution is an empirical question that remains to be tested.

Staggered boards provide temporal insulation against hostile takeovers but have been empirically associated with reduced firm value and diminished management accountability [10]. LER does not alter board composition or election timing, instead operating through an incentive layer that is structurally independent of board architecture. This separation suggests that LER could complement or substitute for staggered board protections without their associated entrenchment costs.

4.3. Market Opportunity

The potential market context for LER is shaped by several converging trends. As of 2025, shareholder activism is estimated to affect over \$900 billion in market value annually. The broader capital reallocation from fixed income to equities and digital assets, estimated at approximately \$10 trillion, is accompanied by annual ETF inflows exceeding \$500 billion from bond-to-equity shifts [26]. The global loyalty rewards sector is estimated

at approximately \$94 billion. Projections for the tokenized asset market suggest it could exceed \$2 trillion by 2030 [27,28].

Under favorable assumptions, LER could participate in these market segments by offering a utility-centric, compliance-oriented loyalty mechanism that appeals to both retail and institutional shareholders. Merchant network connections could accelerate pilot adoption, and fiat-equivalent revenue from voucher redemptions could ease sell-off pressure during activist campaigns. These projections are contingent on successful technical implementation, regulatory acceptance, and merchant network development, all of which represent significant uncertainties. The cost-benefit analysis in Section 9 examines these projections in greater detail, and Appendix A sets out the underlying assumptions.

5. LER in the Regulatory Landscape

Corporate defenses against shareholder activism are governed by a complex regulatory framework encompassing Delaware corporation law, federal securities laws, and international regulatory instruments. Each framework imposes distinct requirements designed to balance shareholder rights against board authority. This section assesses LER's plausible legal compatibility with these frameworks, while acknowledging that definitive legal conclusions depend on case-specific facts, implementation details, and future regulatory interpretations.

5.1. Delaware Corporate Law

Delaware, the legal domicile of more than 60 percent of publicly traded U.S. firms, provides the principal framework for evaluating board defenses against shareholder activism. The Unocal standard requires that defensive measures constitute a reasonable response to a legitimate threat and remain proportionate without precluding shareholder voting rights [11]. The Revlon doctrine mandates in change-of-control scenarios that boards prioritize shareholder value maximization [12]. The Blasius standard imposes the strictest scrutiny on actions that directly undermine shareholder voting rights, requiring a compelling justification [13].

LER's design features suggest plausible compatibility with these standards, though definitive compliance would require case-specific adjudication. Under Unocal, LER's universal distribution of non-transferable, utility-only rewards to all verified shareholders, rather than selective issuance to management-aligned holders, would likely support a proportionality argument. Unlike poison pills, which operate through dilutive mechanisms that may be deemed coercive, LER's positive incentive structure does not restrict shareholder trading or voting. Under Revlon, LER's reward structure would need to be designed to avoid favoring long-term holders over others in change-of-control scenarios. Under Blasius, LER's non-discriminatory application and its design to incentivize participation rather than restrict it suggest that it would not require the compelling justification that courts demand for vote-impairing measures.

These assessments are interpretive and subject to important qualifications. If LERs were structured so generously as to effectively constitute vote-buying, or if their deployment were timed to target specific contested votes in ways that courts deemed coercive, the proportionality analysis could shift. Similarly, selective or discriminatory distribution patterns could trigger enhanced scrutiny. The legal compatibility of LER ultimately depends on implementation specifics that this article can frame but not definitively resolve.

5.2. U.S. Securities Regulation

Under U.S. federal securities law, the central question is whether LERs would constitute securities under the Howey test [36]. An investment contract requires (1) an investment of money, (2) in a common enterprise, (3) with a reasonable expectation of profits,

(4) derived from the entrepreneurial or managerial efforts of others. LER's design is intended to fail the third and fourth prongs, though reasonable legal minds could disagree on border cases.

Regarding the first prong, LERs are not purchased; they accrue to existing shareholders based on holding duration. Courts have interpreted "money" broadly, but the absence of a direct exchange of consideration for LER units weakens this element. Regarding the second prong, some form of common enterprise may exist under horizontal or vertical commonality tests, though issuer discretion in reward allocation may attenuate horizontal commonality. The critical elements are the third and fourth prongs. LERs are designed as non-transferable, non-fungible consumptive utilities with no secondary market. Their value derives from merchant redemption rather than issuer performance, and accrual is automated via smart contracts rather than dependent on managerial effort. These features are designed to preclude the expectation of speculative profit and reliance on others' efforts that characterize investment contracts.

SEC guidance supports this analysis, though it does not conclusively resolve it. The IMVU No-Action Letter [37] treated a fixed-price, non-speculative digital currency as a non-security based on similar characteristics. The SEC's 2019 Framework [38] emphasizes that digital assets driven by user actions rather than promoter efforts are less likely to be securities. LER's design is distinguishable from cases such as SEC v. LBRY, Inc. [39], where promotional efforts created profit expectations, and Friel v. Dapper Labs, Inc. [40], where platform-controlled blockchain tied asset value to managerial efforts. The securities characterization of LER remains a reasoned legal position subject to future regulatory interpretation and enforcement action, not a settled question.

Additional regulatory considerations include SEC Rule 14a-9's prohibition on misleading proxy solicitations [41], which would require boards to disclose LER distributions in proxy materials. The Williams Act's disclosure requirements for significant ownership stakes [42] would not be triggered by LER's universal reward application, which does not involve selective share issuances. Rule 10b-5's prohibition on market manipulation [43] would be relevant if LERs were structured to artificially influence stock prices, though LER's utility-only design is intended to avoid creating financial yields that could produce such effects.

5.3. EU and International Frameworks

In the European Union, the Transparency Directive [44] requires shareholders to notify issuers when holdings cross specified thresholds, an obligation relevant in activist contexts but not directly implicated by LER's reward distribution. MiCA [17] exempts non-transferable utility tokens from white paper and issuer authorization requirements, provided they lack investment characteristics and are confined to closed-loop ecosystems. LER's design as a non-transferable, consumptive token reward appears compatible with this exemption, though MiCA's application to novel governance instruments has not yet been tested by European regulators.

The UK's FCA may support LER's viability under limited-network exemptions for non-transferable voucher rewards, provided such rewards avoid investment-like marketing. LER's use of ZKPs for ownership verification is designed to comply with GDPR and CCPA/CPRA privacy requirements. Cross-border implementation would require careful attention to jurisdictional variation in the classification of digital assets and the regulatory treatment of loyalty mechanisms.

6. LER in Proxy Fights

6.1. How LER Could Shape Proxy Contests

Proxy fights represent a critical battleground in corporate governance, where dissident shareholders challenge incumbent boards by soliciting proxies to nominate alternative director slates [45]. Dodd and Warner's foundational study of proxy contests from 1962 to 1978 documented that such contests typically arise in firms with declining stock performance and produce positive abnormal returns upon announcement. The contemporary proxy landscape has grown considerably more complex, with activists prevailing in approximately 40 percent of contested situations [25].

LER could shape proxy contests by encouraging shareholders to maintain their holdings through contested periods rather than selling in response to activist-driven uncertainty. By analogy to the consumer-loyalty literature reviewed in Section 2.3, in which well-executed retention programs have been documented to reduce customer churn by 15 to 30 percent and to increase annual member-cohort revenue by comparable margins [22,24], LER's time-weighted rewards would target retail investors who hold approximately 40 percent of U.S. equities and form a potentially decisive voting bloc in close contests. By offering tangible, non-speculative utility benefits, LER could create economic and behavioral ties that reduce the likelihood of retail sell-offs during activist campaigns. The magnitude of this effect is a testable empirical question (Hypothesis 1 and Hypothesis 2) rather than a demonstrated finding, and the translation of consumer-loyalty effects to a shareholder governance context involves uncertainties identified in Section 10.

Institutional investors, who demand clarity and fairness in governance, could also be attracted by LER's blockchain-based transparency in reward distribution. Unlike traditional proxy settlements that may grant activists board seats at potential cost to long-term stability, LER would seek to align both retail and institutional shareholders with the board's strategic vision through positive incentives rather than structural concessions.

6.2. Strategic Deployment

LER could be strategically deployed during the pre-proxy season, when activists typically build their cases through public letters or media campaigns. By targeting verified stockholders via NASDAQ's on-chain infrastructure, LER could reach passive institutional and retail voters who often hold decisive sway in close contests. If the retention and alignment effects hypothesized in H1 and H2 materialize, LER deployment could be expected to moderate activist success rates relative to the approximately 40 percent baseline reported in the empirical literature [25]. The illustrative range used in this article, a 15 to 30 percent relative reduction in success rates, is calibrated against the analogous loyalty-program effect sizes summarized in Section 2.3 [22,24] and is not a predictive forecast. It should be read as a benchmark for the order of magnitude that empirical testing of Hypothesis 2 would aim to evaluate, not as a result of this study.

Unlike poison pills, which risk judicial invalidation for disproportionality, LER's universal application would avoid discriminatory treatment under *Blasius*. LER would not constitute a proxy solicitation under SEC rules because it does not function as an inducement to vote in a particular direction; rather, it incentivizes the maintenance of stock ownership, which may indirectly affect voting behavior by stabilizing the shareholder base.

6.3. Legal Boundaries

LER's deployment in proxy contests would be subject to the full range of Delaware fiduciary duties. To satisfy Unocal proportionality, LER should be deployed only in response to clear, identifiable threats to corporate policy and should reward all eligible long-term stockholders equally based on objective criteria such as holding duration. LERs

should not be so generous as to effectively constitute vote-buying, nor should they be timed or structured to coerce particular voting outcomes.

Under the duty of loyalty, LERs cannot be issued selectively to management-aligned shareholders while excluding others. To comply with Revlon in change-of-control scenarios, LER distributions must not favor long-term holders over others in ways that could undermine the highest bid or fragment shareholder support. Boards deploying LER should consider establishing independent board committees and providing full disclosure of LER terms in proxy materials to bolster fiduciary compliance.

7. LER for Offsetting Stock Price Volatility

Stock prices frequently experience heightened volatility between annual shareholder meetings, particularly when activist investors employ tactics such as short-selling, public media campaigns, or strategic information releases. These dynamics can amplify market uncertainty and pressure retail investors to sell, creating downward pressure on stock prices.

LER's time-weighted reward structure is designed to counteract this effect by offering shareholders tangible benefits for maintaining their holdings through volatile periods. If the retention effects hypothesized in H1 and H3 materialize, LER could stabilize ownership patterns during activist-driven market swings without imposing the trading restrictions associated with traditional lockup mechanisms. This approach would be particularly relevant for retail investors, who are often the most susceptible to activist-induced selling pressure.

LER's accounting treatment supports this stabilization potential. By funding rewards from marketing budgets and expensing them upfront under ASC 606 and IFRS 15 [29,30], LER avoids the deferred-revenue liabilities associated with traditional loyalty programs. Voucher redemptions generating revenue at fiat parity could potentially improve credit profiles and reduce borrowing costs for issuers, though the magnitude of these financial effects would depend on implementation scale and market conditions.

8. Broader Applications of LER

The proxy-fight context analyzed in Sections 6 and 7 is the principal application of LER and the application most directly grounded in the literature reviewed in Section 2. The applications discussed in this section extend the framework to ESG, M&A, political-spending, and executive-compensation contexts. They are presented as illustrative extensions rather than as equally mature use cases. They are more sensitive to the boundary conditions identified in Sections 5.1 and 6.3, in particular the requirement that LERs not be structured or timed in ways that could be characterized as inducements to vote in a particular direction. To preserve consistency with the non-coercive, ownership-based incentive structure on which the proxy-fight analysis depends, the extensions discussed below are framed around holding duration, participation, and broader engagement criteria rather than around direct support for particular management proposals. Each extension would require its own targeted empirical and doctrinal analysis prior to deployment.

8.1. Incumbent-Activist Conflicts and Alignment

LER could provide incumbent boards with a tool for encouraging activist alignment without resorting to entrenchment tactics. By offering targeted utility rewards as part of broader engagement frameworks, LER could create a positive-sum environment in which activists have duration- and engagement-based incentives that do not require seat concessions or major policy reversals. Central to this approach are soulbound tokens (SBTs), non-transferable digital assets tied to specific individuals, which ensure that rewards focus on encouraging cooperation rather than speculative gain.

LER in this context functions as a blockchain-based analog to the “golden leash” concept, describing compensation arrangements that incentivize alignment between activists and management without altering board composition or violating director independence rules. Unlike traditional golden leash arrangements, which may involve financial payments to activist-nominated directors and raise conflict-of-interest concerns, LER offers non-transferable, utility-only voucher rewards. Whether this incentive structure would prove sufficient to induce activist cooperation in practice is an empirical question that depends on the relative value of LERs, the magnitude of activist demands, and the competitive dynamics of specific governance disputes.

8.2. ESG Disputes

LER could be deployed in the context of ESG-related shareholder proposals as a retention and engagement instrument rather than as a vote-conditioned reward. Distributing rewards on the basis of holding duration and broader engagement, such as participation in shareholder education programs or disclosure consultations, would allow boards to build a more stable long-term shareholder base from which to advance ESG strategy without conditioning rewards on particular votes. This framing avoids the vote-buying concerns articulated in Sections 5.1 and 6.3 and remains consistent with the non-coercive design constraints on which the proxy-fight analysis depends. This application is particularly relevant given the growing emphasis among institutional investors on ESG initiatives that support long-term financial performance, but its appropriateness in any specific ESG dispute requires further doctrinal and empirical evaluation.

8.3. M&A Contests

In M&A contexts, LER could be used to stabilize the shareholder base during periods of strategic uncertainty by rewarding continued holding through transaction review and disclosure periods. Unlike poison pills, which may entrench management and limit accountability, LER’s ownership-based incentive structure would seek to reduce sell-pressure-driven volatility without diluting ownership or imposing financial burdens, and without conditioning rewards on a particular vote outcome. The effectiveness of LER in M&A contests would depend on the relative attractiveness of LERs compared to the economic value of competing bids, a relationship that would require empirical investigation. Particular care would be required in change-of-control scenarios so that LER’s retention incentives do not operate to disadvantage the highest bid in a manner inconsistent with Revlon duties [12].

8.4. Political Spending and Lobbying

LER could enable incumbent boards to maintain a stable shareholder base during periods of political-spending and lobbying-related governance disputes by rewarding continued ownership and broader engagement, such as participation in disclosure consultations, rather than by conditioning rewards on votes for or against particular political-expenditure resolutions. This application operates within the framework established by *Citizens United v. FEC* [46], which affirmed corporate First Amendment rights to political spending while increasing transparency requirements. LER’s blockchain-based records of voucher reward eligibility could help satisfy disclosure requirements while avoiding any appearance of vote-buying or vote-conditioning. As with the other applications in this section, the deployment of LER in this context would require careful attention to the boundary conditions identified in Section 5.1 and is presented here as an illustrative extension rather than as an established use case.

8.5. Executive Compensation

LER could support shareholder engagement on say-on-pay matters by stabilizing the long-term shareholder base from which compensation packages are evaluated. Distributing rewards on the basis of holding duration and engagement, rather than conditioning rewards on particular say-on-pay votes, allows the mechanism to encourage informed and durable shareholder participation without creating direct conflicts with the duty of loyalty or any appearance of self-dealing. This application would operate under Delaware's business judgment rule [47], which presumes that boards act in good faith unless self-dealing or gross negligence is evident. LER's transparent reward structure and universal distribution would support business judgment protection, provided that boards take particular care to ensure that LERs do not create the appearance of self-dealing by conditioning rewards on votes that directly benefit incumbent compensation.

9. Cost–Benefit Analysis

This section systematically evaluates the projected costs, risks, and benefits of LER implementation. The analysis draws on the framework established in preceding sections and identifies the conditions under which LER's governance enhancements would outweigh implementation challenges. The detailed derivation of the cost figures presented below is set out in Appendix A.

9.1. Costs and Risks

Regulatory and legal costs. LER implementation would incur significant compliance expenses. Initial legal advisory and ongoing monitoring costs are illustratively projected at \$500,000 to \$2 million per firm, derived in Appendix A by analogy to documented average company spending on proxy contest legal and advisory services and adjusted for the additional regulatory novelty of a blockchain-enabled mechanism [25]. Enforcement risks under SEC Rules 14a-9 and 10b-5 could generate penalties exceeding \$1 million, based on historical precedent in digital asset enforcement actions. Delaware fiduciary litigation, if LER distributions were challenged as disproportionate under *Unocal* or *Blasius*, could result in dispute costs of \$1 to \$3 million. Cross-border adoption under MiCA and other international frameworks introduces additional compliance complexity, with potential fines of up to 3 percent of annual turnover for non-compliance.

Operational and technical costs. Blockchain integration for LER would require upfront investments illustratively projected at \$1 to \$5 million per company for smart contract development, NASDAQ framework compatibility, and cybersecurity measures. The lower bound corresponds to a token-and-distribution architecture comparable to standard ERC-20-class smart contract implementations with associated security audits, while the upper bound corresponds to enterprise-grade, multi-component systems with cross-chain integrations and continuous security review, on the basis of industry data summarized in Appendix A. Smart contract vulnerabilities present risks analogous to DeFi exploits, which have exceeded \$1 billion in annual losses industry-wide, necessitating insurance premiums of 1 to 2 percent of asset value. Privacy compliance under GDPR/CCPA for ZKP-based verification adds estimated ongoing costs of approximately \$200,000 annually. Retail investor adoption barriers could generate unequal participation patterns, potentially triggering shareholder litigation.

Economic and market risks. LER could attract short-term “mercenary” shareholders who participate solely for rewards and exit immediately after receipt, potentially eroding loyalty benefits and heightening volatility. Reward funding from marketing budgets may strain resources for mid-cap firms. Market devaluation of utility rewards, analogous to stablecoin overflow scenarios, could undermine perceived value. Technology access dis-

parities among shareholders could create inequality concerns and reputational risks. The cost and risk figures cited throughout this Section 9.1 are illustrative ranges under the stated assumptions, with detailed derivations set out in Appendix A; they should not be treated as predictive estimates for any particular firm.

9.2. Benefits

Governance enhancements. If the hypothesized retention and alignment effects materialize, LER could produce substantial reductions in activism-related costs. The illustrative 15 to 30 percent relative reduction in proxy fight success rates discussed in Section 6.2, calibrated against consumer-loyalty effect sizes [22,24], would correspond to stabilization of significant market value currently subject to activist-driven volatility. Blockchain-based governance infrastructure could reduce coordination costs and enable real-time voting and reward distribution, potentially lowering governance overhead by an illustrative 20 to 30 percent. These figures are illustrative projections under the assumptions stated in Appendix A rather than predictive results.

Market opportunity. In the context of an estimated \$10 trillion capital reallocation and a projected \$2 trillion tokenized asset market by 2030, LER is positioned to participate in emerging governance infrastructure markets [27,28]. Revenue-sharing from reward redemptions could enhance financial efficiency for issuers, with illustrative annual savings of up to \$440 million for large firms through improved credit profiles under favorable adoption assumptions. These projections are highly sensitive to adoption scale, merchant network development, and market conditions; the underlying assumptions are set out in Appendix A and should not be treated as predictive figures for any particular firm.

9.3. Net Evaluation

Under the specified assumptions, the projected benefits of LER appear to outweigh costs and risks for firms with robust technological infrastructure and proactive compliance strategies. While initial costs may reach \$5 to \$10 million, the projected savings from reduced activism volatility and market capture in a growing tokenized ecosystem could provide favorable returns on investment. This net evaluation is contingent on the validation of the four hypotheses articulated in Section 3, successful technical implementation, regulatory acceptance, and merchant network development. Firms considering LER adoption should conduct firm-specific cost-benefit analyses that account for their governance exposure, technological capacity, and risk tolerance.

10. Limitations

This article presents LER as a conceptual-and-design contribution whose scope is bounded by deliberate methodological choice rather than by oversight. The contribution is complete with respect to mechanism specification, doctrinal compatibility, and comparative evaluation; it is, by design, the first phase of a two-phase program whose confirmatory empirical stage is specified in Section 3.2 and reserved for dedicated treatment. The limitations below identify, with precision, what the present phase does and does not establish, so that the boundary between the design contribution and the empirical claims it motivates is unambiguous.

First, absence of empirical validation. The article does not present results from pilot implementations, formal mathematical modeling, agent-based simulations, or controlled experiments. The four hypotheses articulated in Section 3 are derived from theoretical reasoning and analogical extrapolation from related domains, particularly consumer loyalty programs and DeFi incentive mechanisms. Until these hypotheses are subjected to rigorous empirical testing, the predicted governance effects of LER should be treated as plausible projections rather than demonstrated outcomes. The translation of consumer-

loyalty effect sizes to a shareholder-governance context is itself a behavioral assumption that requires validation, since the determinants of shareholder holding and voting behavior differ in important respects from the determinants of consumer purchase behavior.

Second, quantitative projections are illustrative. The estimates presented throughout this article, including the 15 to 30 percent retention and activist-success-rate ranges, the per-holder-day cost projection, the legal and operational cost projections in Section 9.1, and the various market opportunity figures, are derived through analogical reasoning from secondary sources and industry reports and are calibrated rather than predictive. Different assumptions about adoption rates, merchant network development, shareholder behavior, and macroeconomic conditions could produce materially different estimates. The assumptions and parameter ranges underlying each projection are set out in Appendix A.

Third, legal analysis is interpretive. The doctrinal analysis of LER's compatibility with Delaware fiduciary law, U.S. securities regulation, and international frameworks represents a reasoned legal position based on application of established tests and precedents. It does not constitute legal advice and should not be construed as a guarantee of compliance. Definitive legal characterization would require case-specific adjudication and may depend on implementation details, factual circumstances, and future regulatory interpretations that this article cannot anticipate.

Fourth, technical and comparative analyses are conceptual. The article describes LER's smart contract logic, SBT distribution mechanism, ZKP verification, and API integration at a sufficient level of detail to communicate the mechanism's design logic but does not provide a production-grade architecture specification, transaction-logic walkthrough, or security audit. The comparison of LER with existing governance defense mechanisms in Section 4.2 is structured around identified dimensions but does not employ formal modeling to quantify LER's relative effectiveness under varying parameterized conditions. Future work should develop and test a prototype implementation and apply agent-based modeling or game-theoretic analysis to provide more rigorous comparative insights.

These limitations define a confirmatory research agenda rather than an open-ended one, because the design in Section 3.2 already fixes the cohorts, treatments, outcome measures, and falsification conditions. The immediate priorities are, in order: execution of the agent-based simulation specified for Hypotheses 1 and 3, including calibration of agent parameters against retail-ownership panel data; solution of the proxy-contest equilibrium specified for Hypothesis 2, with comparative statics over the admissible reward range; completion of the adversarial doctrinal stress test specified for Hypothesis 4; and, conditional on supportive results from these three, development of a prototype implementation suitable for a limited field pilot with a cooperating issuer. Each phase tests propositions stated in advance in this article, so that the present design contribution and its subsequent empirical evaluation form a single, falsifiable research program.

11. Conclusions

This article has introduced Liquid Equity Rewards as a proposed blockchain-enabled governance mechanism and developed a structured analytical framework for evaluating its potential effects. LER's dual architecture, combining off-chain digital vouchers for traditional equities with programmable on-chain soulbound tokens for tokenized stocks, represents a novel approach to shareholder incentive design that draws on the convergence of tokenized governance infrastructure, DeFi retention mechanisms, and stablecoin payment systems.

The article's analysis suggests that LER could offer plausible advantages over existing governance defense mechanisms across several dimensions. Its positive incentive structure avoids the coercive and discriminatory features of poison pills and restrictive

bylaws. Its utility-only, non-transferable reward design appears compatible with the proportionality requirements of Delaware fiduciary law and the securities classification thresholds of the *Howey* test, though definitive compliance depends on implementation specifics and future regulatory interpretation. Its blockchain-based distribution mechanism could enhance governance transparency and reduce coordination costs.

These potential advantages are qualified by the limitations articulated in Section 10. LER remains a conceptual proposal that has not been subjected to empirical validation, prototype testing, or formal modeling. The quantitative projections presented in this article are illustrative and derived from analogical reasoning. The legal analysis represents a reasoned interpretive position rather than a guarantee of compliance.

Notwithstanding these limitations, this article contributes to the governance literature by providing a structured analytical framework for evaluating blockchain-enabled shareholder incentive mechanisms and by identifying testable hypotheses and specific conditions under which LER could function as a scalable complement to existing corporate governance tools. The principal application of the framework lies in the proxy-fight context analyzed in Sections 6 and 7; the applications discussed in Section 8 are illustrative extensions that would require their own targeted empirical and doctrinal analysis prior to deployment. The four hypotheses articulated in Section 3 define a clear agenda for future empirical and simulation-based research. If validated, LER could contribute to a governance paradigm that aligns shareholder and board incentives through positive, transparent, and technology-enabled mechanisms rather than through the restrictive defenses that have drawn sustained scholarly and judicial criticism.

Funding: This research received no external funding.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Acknowledgments: The author is grateful for excellent research assistance from Mickey Bernardi.

Conflicts of Interest: The author declares no conflicts of interest.

Abbreviations

The following abbreviations are used in this manuscript:

LER	Liquid Equity Rewards
SBT	Soulbound Token
DeFi	Decentralized Finance
ZKP	Zero-Knowledge Proof
SEC	Securities and Exchange Commission
MiCA	Markets in Crypto-Assets Regulation
GAAP	Generally Accepted Accounting Principles
IFRS	International Financial Reporting Standards
ESG	Environmental, Social, and Governance
M&A	Mergers and Acquisitions
PAC	Political Action Committee
KYB	Know Your Business
TVL	Total Value Locked
ETF	Exchange-Traded Fund
FCA	Financial Conduct Authority
GDPR	General Data Protection Regulation
CCPA	California Consumer Privacy Act
CPRA	California Privacy Rights Act
FINRA	Financial Industry Regulatory Authority
API	Application Programming Interface

Appendix A. Derivation of Quantitative Projections

This Appendix sets out the derivation of the principal quantitative projections used in this article. Each projection should be understood as an illustrative benchmark calibrated against analogical reference data rather than as a predictive forecast. Parameter ranges and sources are identified in each subsection.

Appendix A.1. Per-Holder-Day Cost: \$0.01 to \$0.05

The projected operating cost of \$0.01 to \$0.05 per holder per day for an LER program is constructed from three input ranges. First, mature consumer-loyalty programs in retail, hospitality, and financial services typically report annual per-active-member operating costs in the range of approximately \$4 to \$20, equivalent to roughly \$0.011 to \$0.055 per member per day on a 365-day basis [24]. Second, merchant-funded programs operating under marketing-cost-of-acquisition assumptions report substantially lower issuer-side costs, with the marginal cost of each merchant-funded reward externalized to merchant partners whose own customer-acquisition costs are typically a multiple of the wholesale value of the supplied benefit [24]. Third, programmatic distribution via smart contracts substitutes a substantially lower variable transaction cost for the per-account servicing cost characteristic of legacy loyalty platforms.

The lower bound of \$0.01 corresponds to a predominantly merchant-funded LER program with smart-contract-based distribution and minimal issuer-borne servicing cost. The upper bound of \$0.05 corresponds to a predominantly issuer-funded program with richer reward content and full issuer absorption of merchant-side cost. For a firm with one million eligible shareholders, the resulting annual program cost falls in the range of approximately \$3.65 million to \$18.25 million, an order of magnitude consistent with mid-size to large-firm marketing-program budgets. The figure is sensitive to the proportion of merchant funding, the average daily redemption value, and the proportion of eligible shareholders who actively participate. A reduction in the participation rate to 50 percent, for example, would proportionally reduce the issuer-borne cost.

Appendix A.2. Initial Legal and Advisory Costs: \$500,000 to \$2 Million

The projected range of \$500,000 to \$2 million for initial legal advisory and ongoing monitoring costs is derived by analogy to documented spending on legal and advisory services in the proxy-contest context, adjusted to reflect the additional novelty of a blockchain-enabled mechanism. Diligent Market Intelligence reports that companies budgeted average proxy-fight expenditures of approximately \$4.6 million for the 2025 proxy season, of which legal and advisory services historically constitute the substantial majority of total cost [25]. SEC analysis of proxy-contest filings between 2017 and 2020 placed median company spending at approximately \$1.7 million across all proxy-contest categories.

LER implementation differs from a proxy contest in two relevant respects. The work product is regulatory and structural rather than litigation-driven, which lowers the cost relative to active dispute representation. The novelty of the mechanism, however, requires legal opinions across at least three regulatory frameworks (Delaware fiduciary, U.S. federal securities, and MiCA) and ongoing monitoring as those frameworks evolve, which raises the cost relative to standardized regulatory work. The lower bound of \$500,000 corresponds to a streamlined initial implementation by a firm with internal regulatory expertise and standardized advisory engagement. The upper bound of \$2 million corresponds to a more complex deployment with cross-border regulatory coverage, formal opinion letters, and ongoing monitoring through the first two years of operation. The figure does not include the dispute-cost ranges identified separately in Section 9.1, which would apply only in the event of fiduciary litigation or regulatory enforcement.

Appendix A.3. Smart Contract Development and Audit: \$1 Million to \$5 Million

The projected upfront investment of \$1 to \$5 million per company for smart contract development, NASDAQ framework compatibility, and cybersecurity measures is derived from industry data on enterprise smart-contract development and audit costs. Industry surveys identify smart contract audit costs ranging from approximately \$5000 to \$15,000 for simple ERC-20-class contracts and from \$30,000 to \$200,000-plus for complex multi-component or cross-chain protocols. Development costs, including specialized engineering for KYB integration, ZKP verification, and merchant API integration, typically constitute a multiple of audit costs. The lower bound of \$1 million corresponds to a single-chain LER deployment using standardized SBT and voucher-distribution components with full security audit. The upper bound of \$5 million corresponds to a multi-chain enterprise deployment with custom merchant integrations, formal verification of critical components, and ongoing security retainers across the first two years of operation.

Appendix A.4. Activist Success Rate Reduction: 15 to 30 Percent

The illustrative 15 to 30 percent relative reduction in activist proxy-contest success rates is calibrated against the analogous effect sizes documented in the consumer-loyalty literature, in which well-executed retention programs reduce customer churn by 15 to 30 percent and increase annual member-cohort revenue by comparable margins [22,24]. The mapping from consumer-loyalty effect sizes to shareholder-governance effect sizes assumes that the mechanism through which retention incentives operate, namely the creation of small but tangible economic and psychological switching costs, transfers in directionally similar form from consumer to shareholder behavioral contexts. The mapping is illustrative rather than predictive. The translation of effect sizes between behavioral domains is itself an empirical question identified in Section 10 and constitutes one of the principal motivations for Hypothesis 1 and Hypothesis 2.

Appendix A.5. Annual Issuer Savings: Up to \$440 Million for Large Firms

The illustrative figure of up to \$440 million in annual savings for large firms is derived under favorable adoption assumptions from three components. First, reduced activism-driven trading volatility, applied to the share of market value documented as currently subject to activist campaigns. Second, reduced borrowing costs from improved credit profiles attributable to a more stable shareholder base. Third, governance-overhead reductions of an illustrative 20 to 30 percent through automated voting and reward distribution. The figure assumes large-firm scale (market capitalization in the high tens of billions of dollars or more), high participation rates, and successful merchant network integration. Reductions to any of these assumptions produce proportional reductions in the projected savings. The figure is presented as a ceiling estimate under favorable conditions rather than as a central forecast for any particular firm.

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