Introduction to Gages

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Abstract

This paper proposes a new class of long-term financial instruments as a solution to a deeply rooted human issue, short-termism.

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1 Introduction

An estimated $79.1 billion in firms' earnings were lost annually over the past 22 years as a consequence of a trend ubiquitous in modern finance (Barton, York, Manyika, & Francisco, 2017). Short-termism: the habit of focusing on short-term results at the expense of long-term gain. With a total $1.7 trillion firms stand to gain from solving this issue, short-termism has significantly harmed the economy over the last three decades (Orsagh, Allen, & Schacht, 2020). Often associated with unemployment, lower growth, decreased profits, and a lack of R&D in traditional markets, corporate short-termism proves itself damaging to both firms and investors alike. Moreover, this practice has become widespread within the cryptocurrency community, as observed through rug-pulls[1], vaporware and other projects with unsustainable token economics and mercenary liquidity. Public proposals for solving these issues have generally come in the form of changes in earnings guidance, incentives or protective mechanisms (Bolton & Samama, 2013; Orsagh et al., 2020). Though these have demonstrated some success in regard to preventing some aspects of the problem, they have failed to tackle the source: an imbalance of short-term versus long-term strategies caused by an overall lack of long-term culture. The CFA Institute estimates addressing the problem could increase shareholder value by some $200 million (Orsagh et al., 2020). This paper presents a long-term oriented solution to the problem of corporate short-termism, introducing a novel branch of financial tools offering a strong potential to crystallize as a safer and more lucrative addition to modern finance.

[1] A rug pull is a maneuver most prevalent in decentralized markets wherein developers of a project abscond with all of the investor's funds.

1.1 Short-termism

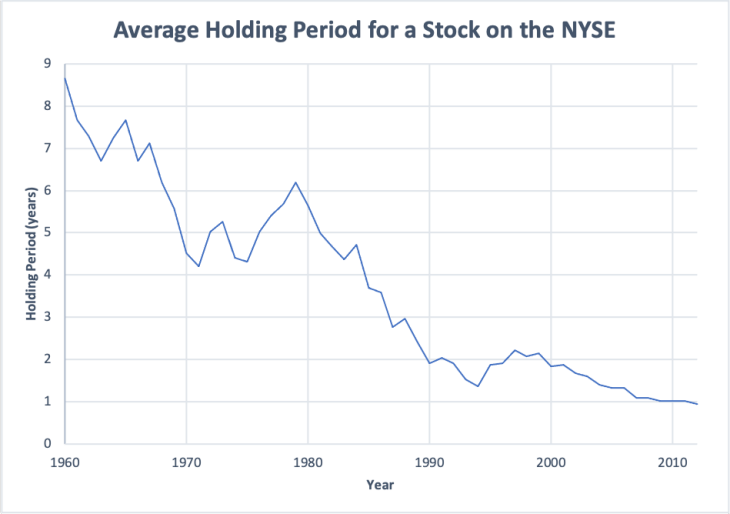

Figure 1: Average Holding period for a stock on the NYSE (1960 - 2013)
Source: Bolton & Samama, 2013

From a short-term perspective–2009 to the present–the outlook conveyed in Figure 1 seems optimistic. A report by the Focusing Capital on the Long Term initiative (FCLT Global) showed that CEO tenures, the average holding period for S&P 500 shares, and the average duration of corporate bonds are all increasing. However, a longer historical view conveys a rather somber image. U.S. business investment in fixed assets is at an all-time low and the share of net income spent on buybacks by S&P 500 companies represents nearly 30 times the data seen in 1981, with a high of 58 percent (Barton, Bailey, & Zoffer, 2016). Note that this trend is not unique to S&P 500 companies, as it is applicable to others such as the NYSE. Its impact is also observed globally on most major exchanges (Bolton & Samama, 2013). These trends suggest a strong imbalance in the usage of short-term versus long-term strategies, with an overwhelming amount of investors adhering to the former. In turn, this disequilibrium is responsible for substantial limitations in both traditional and decentralized markets, which affect both the investors and firms involved. Furthermore, it creates negative externalities which are paid by uninvolved stakeholders from the same market, the retail investor and the global economy.

1.1.1 Issues in Traditional Markets

In traditional markets, short-termism results in insufficient attention being paid to a firm or an institution's strategy, fundamentals, and long-term value creation (EY, 2014). Net benefits to economies decline as companies stop pursuing long-

term strategies that are aligned with their long-term development goals (Janicka, Pieloch-Babiarz, & Sajnóg, 2020).

For firms, this is supported by the idea that long-term strategies leads to better performance. A recent paper by the McKinsey Global Institute showed that from 2001-2014, the revenue of firms that focus on long-term strategies (henceforth referred to as long-term firms) grew cumulatively on average by 47 percent more than the revenue of other firms, and with less volatility. Moreover, these same firms also tend to invest more in research and development (R&D). For instance, despite starting with slightly lower R&D spending, long-term companies not only spent a cumulative average almost 50% greater than other companies, they also continued to increase their R&D spending during the financial crisis while others cut R&D expenditure. In addition to this, long-term firms added nearly 12,000 more jobs on average than other firms from 2001-2015 (Barton et al., 2017). Given this potential job creation, the value unlocked by companies taking a more long-term approach is worth more than $1 trillion in forgone US GDP over the past decade, or 0.8% of GDP per year on average. If these trends continue, it could be worth nearly $3 trillion through 2025 (Barton et al., 2017).

These observations strongly support that short-term firms simply perform, behave and contribute less in comparison to long-term firms. It is worth mentioning that investors suffer from short-termism too, as it renders the stock price less informative about management performance and weakens market-based incentives (Calcagno & Heider, 2007).

1.1.2 Issues in Decentralized Markets

Decentralized markets for digital commodities include blockchain projects and any of their traded tokens on DEXs[2]. Despite the novelty of this sector, decentralized markets continue to attract and enable investors eager to obtain a quick profit due to either the abnormal volatility idiosyncratic of cryptocurrencies or abnormally elevated annual percentage yield (APY) rates in liquidity farming (yield farming) contexts. We observe the emergence of a more extreme variant of short-termism, exhibited by both investors and blockchain projects, which sets the credibility of the common retail investor and of the industry itself at risk. Cumulatively costing affected individuals billions of dollars[3], the malpractice of rug-pulling is one of the main methods by which many have fled with investors' funds in decentralized markets. At the time of writing this white paper, the nature of rug-pulling remains largely undocumented. However, it is sensible to infer that in part, the idea of fast, effortless gains plays a role in this (O'Donnoghue & Rabin, 1999). This short-termist philosophy is further reflected in the numerous retail investors who choose to allocate money in "rug-pull" projects due to their promises of high annual percentage yield (APY). This is seen in the $2.3 million lost to *WhaleFarm* which promised APYs of

[2]Decentralized Exchanges

[3]See BitConnect wiping away $1.5 billion and more recently Meerkat finance or TurtleDex ($31 million and $2.5 million, respectively).

7,217,848%.[4] In addition to affecting other stakeholders within the community, these practices also hinder the reputation of blockchain technologies. For instance, outsiders associating this mentality with digital commodities ultimately associate these with rug-pulls or scams.

Long-term companies exhibit stronger financial performance over time. On average, their market capitalization grew $7 billion more than that of other firms between 2001 and 2014. Although long-term firms took bigger hits to their market capitalization during the financial crisis than other firms, their share prices recovered more quickly after the crisis (Barton et al., 2017). These findings are reflected in the aforementioned short-termist blockchain projects offering little to no long-term value or use, with many having been found to either stagnate or perish in previous times of downtrend. In comparison, looking at the recovery of projects aiming to remain relevant in the long-term such as AAVE or VeChain, a trend of superior recovery is witnessed.

Another sign of short-termism is reflected in the issues witnessed in the liquidity provision sector present in DeFi. Analyses by Nansen AI showed that a large majority of farmers appear to exit within the first five days of entering a farm, and half of all farmers never stay beyond 15 days. This is explained by the majority of liquidity providers selling their liquidity rewards to earn back their investments. Once more, the phenomenon of individuals opting for radical short-term strategies at the cost of long-term value is exhibited.

1.1.3 Delving into Issues

Issues in section 1.1.1 and 1.1.2 are best explained as negative feedbacks arising as a result of conflicts of self-interest between two or more entities: agency dilemmas. We name these the Firm-Investor dilemma and Liquidity-Provider dilemma, respectively.

The Firm-Investor Dilemma Firms seek healthy long-term investors who will not sell their shares. Investors seek to maximize their profits under as little time as possible, prioritizing their investments in firms which perform the best under average quarterly periods. Consequently, firms seeking to attract a substantial number of investors behave poorly in an attempt of maximizing short-term revenue. This does not result in the firm achieving its objective in the long-term.

The Liquidity-Provider Dilemma Blockchain projects seek healthy, long-term liquidity providers. Liquidity providers seek to maximize their profits under as little time as possible, prioritizing their investments in blockchain projects offering the highest APYs. As a result, blockchain projects seeking to attract a substantial amount of liquidity providers behave poorly in an effort to increase the appeal of their liquidity-provision incentives. This does not result in the blockchain projects achieving their objective in the long-term.

[4] See WhaleFarm

A striking resemblance is found in both dilemmas, with each depicting imbalanced relationships in which both parties' optimal actions act against each other. However, the sheer similarity of either dilemma lends itself neither to coincidence nor the idea that the blockchain industry represents a subset of all contexts termed corporate. In fact, whilst little research has been carried with regards to the origins of short-termism, the simplest, most logical answer lies in deeply ingrained human behavior. This is supported by present bias, which constitutes part of the psychology of human beings. Present bias is defined by the tendency of an individual to prefer short-term payoffs to those of long-term nature (O'Donnoghue & Rabin, 1999). If the brain is inherently predisposed to present bias, this largely explains society's short-termism, or in this context, investors' desire for short-term profit-maximization. In turn, this also fuels short-termist responses by firms to the investor's poor behavior, cementing a trend of short-termist strategies and agency dilemmas. Both of which, ultimately act as a pavlovian conditioning to our pre-existing short-termism and contribute to an environment which primes this, forcing either party into more short-termist behavior. Hence, individuals manifest short-termism at lesser-impacting levels as present bias, but the environment, which comes in the form of the dynamics and strategies available to individuals, prime social systems into the exacerbation of short-termist behavior. Thus, the following conclusions can be synthesized from this:

1. A significant imbalance of short-term versus long-term strategies exists, with a present lack of long-term culture in the majority of investors.

2. Short-termism is exacerbated and rendered damaging due to uneven dynamics between two or more entities and the overwhelming lack of long-term philosophy inherent to humans.

1.2 Current Solutions

Some relevant solutions to short-termism have been proposed in both traditional and decentralized markets. In the former these mainly include incentives, such as loyalty shares and behavioral changes such as putting an end to quarterly reports. In the latter, the best answer remains liquidity locking and liquidity provision incentives. However, all of these come with downsides which ultimately result in a failure to restore the aforementioned short-term/long-term disequilibrium, hence the term "band-aid" solutions.

1.2.1 Quarterly Reports

Quarterly reports have long been speculated to hold some responsibility in encouraging short-termism (Orsagh et al., 2020). From 2010 to 2016, the percentage of firms issuing these reports has decreased from 36 to 27.8% (Barton et al., 2016). However, as previously demonstrated, this has not prevented the overtime rise of short-termism. In their paper, the CFA Institute recommended

issuers and investors to focus on their engagement with long-term strategies instead of stepping away from earnings guidance (Orsagh et al., 2020).

1.2.2 L-Shares

One approach to mitigate this issue is through the use of incentives. A common example is the idea of loyalty shares (L-Shares), which entails a reward for holders of a fixed time period, called a loyalty period, in the form of a right to buy additional shares at a fixed (lowered) price (Bolton & Samama, 2013). L-Shares take the further step towards fending short-termism, but fail in that they act as a one way incentive, only encouraging the investor to hold. Such a lack of engagement for both parties makes the idea unattractive for firms as they stand to gain less as compared to the investor, and fail to sufficiently motivate the investor. Furthermore, as an incentive by call-warrant, loyalty shares are an application of a concept, in turn introducing little room for further applications. L-Shares have the potential of promoting long-term culture. However, they do not catalyze a range of derivatives which would eventually lead to a new class of long-term financial instruments. This places the idea under the category of "short-term solutions" for what is a "long-term problem".

1.2.3 Liquidity Locking

At present time, locking liquidity is the go-to solution in the arsenal of rug-pull prevention. This consists of locking part or all of the ownership tokens one receives as a result of adding liquidity to a pool on a decentralized exchange. Tokens are locked on a time-lock contract, either self-designed or provided by a third-party service such as Team Finance. Similar variants of liquidity locking holding the same purpose exist, wherein the owners of a token lock part of the total supply by the same means. In spite of its effectiveness, liquidity locking fails in deterring short-termism. Rather, it targets a consequence of the overarching issue, serving only as a protective mechanism.

1.2.4 Liquidity-Provision Incentives

Liquidity-provision incentives come in the form of higher APYs available to any investor providing liquidity for any given token practicing it. However, inflationary token emissions promote short-termism, as they increase sell pressure on the tokens emitted. Moreover, rather than creating long-termist, healthy investors, liquidity pools are incentivized by short-termist lures: abnormally high return rates which only serve in further promoting the idea of fast short-term gain.

1.2.5 Main Problem with Current Solutions

Short-termism is a complex problem inherent to human nature, exacerbated by modern technology and market conditions such as the existence of quarterly reports (O'Donnoghue & Rabin, 1999). There is strong evidence suggesting a

lack of long-term-oriented behavior in both traditional and decentralized markets. The most prominent solutions tend to tackle one of the consequences of short-termism. This generally consists of a tangible action observable only in the short-term, also known as a band-aid method. Such methods are only efficient in delaying problems rather than fixing them. However, not a single one of the presented solutions addresses the issue by long-term means. Some factors responsible for short-termism, such as present bias, are abstract by nature (O'Donnoghue & Rabin, 1999). Consequently, rather than influencing short-termism in the short-term, such factors create carryover effects visible only in the long-term. As a result, the aforementioned short-term solutions are ineffective in truly solving the problem at hand. This suggests the necessity for likewise abstract solutions that will produce a long-termist carryover effect of their own. Therefore, what is needed is a synthesis of short-term incentives and protective mechanisms, that will act as a catalyst for an outburst of long-term strategies. This would work synergistically with the progressive creation of long-term culture resulting from the usage of said incentives, effectively creating a positive long-termist feedback loop. Such a solution has a strong potential of restoring the short-term/long-term balance to a better degree and ultimately contends the position of an all-in-one answer to short-termism.

2 Gages

The key to the solution: the gage (pronounced [geɪdʒ], gāj). Gages are a new class of financial instruments we define as **a contract between two or more stakeholders who promise to pay a percentage of a given deposit to the last stakeholder who breaks a predetermined condition**, where, the given condition of a gage does not need to be universal, it may also be individually different for each holder.

Created with the issue of short-termism in mind, the gage's very own nature tends towards long-term interactions due to its potential in creating self-reinforcing, symbiotic relationships. This long-termist tendency is responsible for significantly reducing risk whilst ensuring high reward at the cost of time. Its versatility suggests the potential to catalyze the creation of an entire long-term philosophy of its own.

2.1 Game Theory

Gages have a propensity to lead to symbiotic relationships. Parties will generally act in both parties' best interests, as explained by the general Nash equilibrium of any given gage.

Stakeholder 1/2	Holds	Breaks
Holds	0.5, 0.5	1, 0
Breaks	0, 1	undefined, undefined

In any given situation, a stakeholder is presented with the binary choice of either holding their given predetermined condition and staying in the gage, or breaking the condition and leaving. Sticking to the predetermined condition always leads to a positive effect on both parties as will be demonstrated in later examples. In the case that both stakeholders 1 and 2 choose to hold, the achieved utility state is higher than 0 as neither loses, but also less than 1 as neither wins. Therefore we attribute such a state a value of 0.5. In the event that both players choose to break their condition, the outcome of the state is undefined as it is impossible to know who wins or loses without knowing the dimension of time. Finally, in the event that one player leaves and the other stays, the state value of the departer is 0 and that of the remainder is 1.

With each player maximizing their utility at 0.5, we see that the Nash equilibrium occurs when both players choose to hold. We can also see that in any given case, holding will on average either yield a payoff of 0.5 or 1. Omitting undefined cases due to their complicated and void nature, we can also conclude that giving up only holds a utility value of 0. Therefore, in any given case or scenario pertaining to gages, the optimal strategy lies in maintaining the predetermined condition.

2.2 Uses in Traditional Markets

In traditional markets, an intermediary can offer customized gages capable of resolving the Firm-Investor dilemma. For instance, take the more sophisticated variation of loyalty shares, called the loyalty gage. Loyalty gages provide call warrants to a given asset. They involve an entity or individual distributing an asset (the distributor), to another entity or individual receiving said asset (the receiver). An initial bonus is instantly rewarded to the receiver either in terms of the risked percentage or another asset, with a second bonus earned if the gage closes in favor of the receiver. The risked percentage of the distributor is always lower than that of the receiver. This ensures that the distributor is not at a loss in the event that the receiver fails to maintain their predetermined condition.

2.2.1 Loyalty Gage: Example and Analysis of Dynamics

Alice owns a company that needs healthy investors who will hold their shares in the long-term. Bob wants to purchase 100 of Alice's shares. However, Bob is an investor who wants to make money under as little time as possible and has no intention of holding in the long-term. Alice, the distributor, offers a loyalty gage to Bob, the receiver.
The loyalty gage warrants Bob 100 shares (the deposit), with a 10% risk percentage for Alice, an 11% risk percentage for Bob and a bonus in the form of Alice's risk percentage. The distributor condition depends on whether Alice re-issues common stock. The receiver condition depends on whether Bob withdraws the 100-share deposit.
As soon as the loyalty gage is active, the bonus of 10 shares is instantly awarded

to Bob, who can freely spend it at will. If Bob withdraws the 100 shares deposited in the contract before Alice's company re-issues shares, then Bob loses 11 shares. If Alice re-issues shares before Bob withdraws his deposit, then Alice pays Bob an additional 10 shares.

The outcomes of each stakeholder can be summarized as follows:

1. Alice (the firm) either gains a healthy long-term investor, or profits.
2. Bob (the investor) either effortlessly gains 20% more shares, or pays 1% more for the original amount.

As we can see, loyalty gages shift the dynamic between firms and investors towards healthier contexts. Involved parties maintain their freedom of choice and may still act in their own interest. Referring back to section 2.1, we may confirm the propensity of gages to lead to symbiosis. If any stakeholder chooses the long-termist action, which provides the most utility to all stakeholders, they are greatly rewarded. However, if any involved party acts in such a way that it is less beneficial to other stakeholders, said party participates in slightly rewarding other stakeholders. Hence, loyalty gages convey a reinforcement learning mechanism, which rather than only rewarding high valued actions, also discourages lower valued actions. Take into account the negative long-term pavlovian conditioning which dynamics and strategies available to individuals provide. Such a negative feedback loop ultimately exacerbates short-termism (see section 1.1.3). In this case, not only are healthy dynamics put in place, but the highest utility strategies are enforced by the gage. Furthermore, as individuals are incentivized in choosing the highest-valued actions, this mechanism may also provide its own positive feedback loop. In turn, this demonstrates a potential to counter the previously mentioned negative cycle and further promote long-termist actions.

2.2.2 Loyalty Gages: Greatest Risk to Reward of all Finance

One factor ignored in the previous example consists of price movement of the gage's deposit, which could particularly discourage the investor. Yet, compared to other strategies, and taking this factor into account, gages still remain a more attractive option to investors. This is explained by one characteristic of the loyalty gage worth mentioning: its ability to consistently offer relatively high risk to reward ratios, which on average tend to equate to much larger values than any other known financial instrument. A loyalty gage with distributor risk percentage γ, receiver risk percentage μ and deposit x offers a risk/reward ratio, R, of:

$$\begin{aligned} R &= \frac{2\gamma x}{(\mu - \gamma)x} \\ R &= \frac{2\gamma}{\mu - \gamma} \end{aligned} \tag{1}$$

Recall that μ is always greater than γ. The general guideline for the difference in value between μ and γ is to maintain it at a range where γ is not twice greater than μ. Doing so, ensures that the minimum risk to reward of loyalty gages is set at 2:1, which ensures a consistently greater risk to reward than any other financial instrument, given the regular 1:1 rates expected in normal times. However, in more realistic examples such as the one detailed in the previous section, the risk to reward reaches significantly higher values:

$$\begin{aligned} R &= \frac{2\gamma}{\mu - \gamma} \\ R &= \frac{2 \times 0.1}{0.11 - 0.1} \\ R &= \frac{20}{1} \end{aligned} \tag{2}$$

As we can see, in such contexts, loyalty gages offer a consistent risk to reward of 20:1. Disregarding that there is no single other financial instrument capable of reproducing this in a consistent manner, we can then calculate that the minimum price movement a deposit must undergo for this gain to turn into a loss must be greater than 2γ. In the previous example, we obtain the idea that a stock's price would need to drop by 20% before Bob incurs losses due to price movement. Considering that the average annualized volatility of S&P500 stocks over the past 10 years lies at an estimated 10.7%, with an annualized standard deviation of 18.1%, this suggests it is unlikely for a stock's volatility to reach such heights.

2.3 Uses in Decentralized Markets

The aforementioned examples are enhanced in decentralized markets. Not only could gaging platforms exist on blockchain, barring the necessity for a broker and their associated fees, creators of a project who would like to promote the long-term development of their token could also employ the usage of a loyalty gage or some variant of it. Additionally, gages can also find their place in reducing initial sell-offs of a token first launching on an exchange. This would be achieved by performing initial coin offerings (ICOs), initial DEX offerings (IDOs) or initial liquidity offerings (ILOs) where either the purchased tokens are sent to a gage contract or the user is given an alternative option of participating in a loyalty gage rather than simply purchasing tokens.

2.3.1 Rug-Pull Prevention

Another particular use of gages lies in rug-pull prevention. Rather than simply locking their funds or liquidity tokens, developers could engage with their community by programming a gage contract with them. In this case, community users who would join would either make a small deposit with their own share of tokens to lock or would not deposit at all. The developers would deposit part or all of the funds/ownership tokens. The condition could reward users with

a relatively small percentage of the deposit in the event that developers opted out by either removing too much liquidity in too little time or withdrawing the deposit (funds). Alternatively, it could reward the developers with either the user's risked percentage of their deposit or more withdrawal rights in the event users withdrew their deposit.

2.3.2 Liquid Gages

Gages can also find their place in tackling the Liquidity-Provider dilemma. In a further development of the loyalty gage, named the liquid gage, the individuals' deposits would be used to provide liquidity to any given pair. Liquid gages are loyalty gages which provide call warrants for a protocol's liquidity. Thus a liquid gage also involves an entity or individual distributing an asset (the distributor), to another entity or individual receiving said asset (the receiver). The risked percentage of the distributor is always lower than that of the receiver. Blockchain projects wishing to incentivize the long-term health of their systems could offer such liquid gages, which would instantaneously reward users with a given token on the condition they enter such a gage and provide liquidity based on a condition determined by the inflationary/deflationary rate of the specified token.

Example Alice created a blockchain project and wants to ensure long-term liquidity provision (LP) of her token which is valued at 1 USDC. Bob wants to pool 100 tokens and 100 USDC to obtain 100 of Alice's LP tokens. However, Bob is a liquidity provider who only participates early in the project and moves on once the rewards are not high enough for him. Alice, the distributor, offers a liquid gage to Bob, the receiver.

The liquid gage warrants Bob 100 LP tokens at a 50% discount, where Bob only needs to deposit USDC or Alice's token, but not both. The parameters are set to a risk percentage of 5% for Alice, a 5.5% risk percentage for Bob and a 5% bonus of the value of the LP tokens in the form of Alice's token. The distributor condition depends on whether Alice's total token supply has increased by a threshold of 2.5%, or 25% of the token's yearly inflation rate. The receiver condition depends on whether Bob withdraws the deposited LP tokens.

As soon as the liquid gage is active, the bonus of 10 (of Alice's) token is awarded to Bob's wallet, who can freely spend it at will. If Bob withdraws his LP tokens (plus LP rewards) before Alice's total token supply has increased by 2.5%, then Bob pays Alice 5.5 LP tokens (equivalent to 11 of Alice's tokens), plus 55.5% of his LP rewards. If Alice's total token supply increases by 2.5% before Bob withdraws the 100 LP tokens deposited in the contract, then Bob receives an additional 10 tokens and 55% of the LP rewards.

To allow liquid gages, Alice can either reserve some of the token supply for liquid gages, rather than for liquidity mining incentives or set up staking services

of the token such that holders can provide their tokens for liquidity provision. A better alternative consists of using both choices, which not only gives any token a certain utility, but also greatly reduces the amount of tokens reserved for liquid gages. This then translates into a substantial reduction of the tokens allocated/emitted for liquidity provision.

The outcomes for either stakeholder can be summarized as follows:

1. Alice either gains healthy long-term liquidity providers or profits.
2. Bob gets to provide liquidity at a 50% discount and either gains the equivalent of 20% more LP tokens, or pays 1% more for the original LP tokens and a part of his LP-rewards.

Thus, we see that liquid gages act similarly to loyalty gages, by ending the short-termist relationships between blockchain projects and liquidity providers. This significantly benefits both parties regardless of price movement and still permits freedom of action. Furthermore, doing so not only reduces the amount of tokens necessary to attract liquidity providers, it also ensures that some are sold in the short and long-term, rather than only in the short-term. In turn, this spreads the selling pressure of tokens by liquidity providers over a longer period of time, allowing for better recoveries. Last, this provides any given blockchain project using such methods a secondary income stream, which can be used to yield intrinsic value to the token itself. Hence, liquid gages imply a considerable potential of superiority to currently available solutions to the Liquidity-Provider dilemma.

2.3.3 Yield Gages and Further Versatility

A further extension on the liquid gage and use of gages consists of a direct improvement to the process of yield farming. The deposit of a gage can be put to use for the period of time it is locked. In the concept of a yield gage, this deposit would be allocated by the gage contract to one or more yield farming strategies, allowing users to not only profit through gaging, but additionally through yield farming. In turn, this adds another layer of profit to yield farming, making it the most profitable manner by which Decentralized Finance (DeFi) users can earn money. What is more, not only would yield gaging improve long-term culture of investors, it also simultaneously improves the issue of short-term reward sell-offs. Individuals participating in yield farming would be both discouraged from exiting the gages and incentivized to stay in them, essentially alleviating the need to sell rewards. In the event another DeFi tool offering capital management rises to popularity, it can be included in a gage too so long as it does not require a given definite lockup period. This would essentially give rise to a new type of gage superior to the tool by itself. Thus, in the same way gages improve yield farming revenue, the earning potential of any new DeFi service with either an indefinite or nonexistent lockup period can be improved with gages. These scenarios provide strong evidence towards the versatility of the gage across diverse use-cases.

3 Conclusion

This paper conveyed the surplus of short-termist mentalities present across all industries. We have also introduced the gage, a new financial instrument, alongside a small fraction of its possible applications. The gage is more than a means of safely earning money, increasing long-term growth, or preventing rug-pulls. Gages are the necessary catalyst to initiating a solution to short-termism, with the significant incentive they propose to any user wishing to earn money with lowered risk at the cost of time. Such an incentive allows the gage to compete with current short-termist strategies such as trading, resulting in an ability to create and promote long-term culture. The illustrated benefits of gages show an unprecedented potential to reequilibrate the short-term/long-term balance within our markets, ensuring a positive outlook on the future of decentralized markets. However, more than that, gages have a significant potential in their ability to solve short-termist issues by establishing symbiotic relationships between any two given entities. Worthy of mention but not covered for the sake of conciseness, are the applications of gages particularly relevant to other short-termist industries such as in the health, education, environmental, and lending sectors. The applicability of gages to most industries conveys that short-termism continues to harm nearly every industry in one way or another. Though unfortunate, this is an undeniable sign that it is time to change our ways of old, and use gages to evolve our strategies to better, healthier and more sustainable methods.

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