

# Wrong-Termism, Right-Termism, and the Liability Structure of Investor Time Horizons

*Andrew Verstein\**

## ABSTRACT

Do investor time horizons lead to inefficient business conduct in the real economy? An extensive finance literature analyzes whether particular practices (e.g., high frequency trading and stock buybacks) lead firms to operate with inefficiently myopic investment horizons, and an extensive legal literature considers the appropriateness of policy interventions. This Article joins those debates by charting the space of possibilities: what might be the causes of problematic time horizons? What solutions are available? One implication of this analysis is that there may be unexplored market-based solutions located on the liability side of investors' balance sheets. This Article also argues that we should avoid characterizing the time horizon problem in a manner that subtly endorses some contested perspective on the appropriate time horizon. Rather than investigating excessive "short-termism" or "long-termism," our starting point should be the broader category of "wrong-termism."

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\*Associate Professor of Law, Wake Forest University School of Law.

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### INTRODUCTION

The investor time horizon literature principally asks two questions. First, it asks the empirical question of whether firms inefficiently telescope their investment timelines to satisfy impatient patrons—in particular, public shareholders.<sup>1</sup> Second, it asks the normative question of whether particular changes—oftentimes changes to the scope of shareholder influence—are accordingly justified.<sup>2</sup>

While this literature is voluminous, I believe there are gains to be made in clarifying how its various parts fit together. To what sorts of time horizons are individuals subject to, and what are their sources? What solutions are there, how are solutions fitted to the various time horizon problems, and how do the various putative solutions interact with each other?

This Article has three ambitions. First, it offers a conceptual analysis of the short-term versus long-term time horizon debate. It provides useful terminology and a taxonomy of both time horizon problems, as well as potential solutions. Second, it explores this conceptual space for some

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1. For just a few studies examining this question, see John Asker, Joan Farre-Mensa & Alexander Ljungqvist, *Corporate Investment and Stock Market Listing: A Puzzle?*, 28 REV. FIN. STUD. 342 (2014) (arguing that public firms invest less than comparable private firms); John R. Graham, Campbell R. Harvey & Shiva Rajgopal, *Value Destruction and Financial Reporting Decisions*, 62 FIN. ANALYSTS J. 27 (2006) (presenting survey data to show that CFOs routinely sacrifice economic value to meet short-term earnings goals). Others have refuted some oft-cited evidence of short-termism. See Jesse M. Fried & Charles C. Y. Wang, *Short-Termism and Capital Flows* (Harv. Bus. Sch., Working Paper No. 17-062, 2017), [http://www.hbs.edu/faculty/Publication%20Files/17-062\\_4b0ff13f-2654-475f-bd45-7b1f42bb936a.pdf](http://www.hbs.edu/faculty/Publication%20Files/17-062_4b0ff13f-2654-475f-bd45-7b1f42bb936a.pdf) [<https://perma.cc/8PQE-TMGY>].

2. See generally William Bratton & Michael Wachter, *The Case Against Shareholder Empowerment*, 158 U. PA. L. REV. 653 (2010); Jack C. Coffee & Daria Palia, *The Wolf at the Door: The Impact of Hedge Fund Activism on Corporate Governance*, 41 J. CORP. L. 545 (2015). But see Lucian A. Bebchuk, *The Myth that Insulating Boards Serves Long-Term Value*, 113 COLUM. L. REV. 1637 (2013); Mark J. Roe, *Corporate Short-Termism-- In the Boardroom and in the Courtroom*, 68 BUS. L. 977 (2013).

operational insights useful to policy makers and future researchers. By reflecting on the solutions that have been considered, it is able to point out solution categories so far neglected. In particular, it shows that the literature has largely ignored, and the law has largely hindered, an important potential response to time horizon problems: liability transfer. Third, it coins a term that will be helpful to those studying time horizons: “wrong-termism.” The remaining paragraphs of this Introduction serve to define the term and to further clarify the scope and ambitions of this Article.

Shareholder time horizon problems are usually imagined in terms of excessively short time horizons. Although this Article is certainly written with that critique in mind, its analysis is general to all investor time horizon problems. After all, defenders of alleged *short*-term investors may wish to accuse their opponents of excessive *long*-termism;<sup>3</sup> turnabout is fair play, and I hope that this Article’s concepts can be of service, regardless of who invoke them. Movable type was essential to the Reformation and Counter-Reformation alike.

To emphasize this generality, and to avoid unintended associations, I largely avoid loaded terms such as “myopic.” To discuss arguably problematic time horizons, I abjure both “short-termism” and “long-termism.” Instead, I propose that we speak of “wrong-termism” and “right-termism.” Wrong-termism refers to both short-termism and long-termism. It is meant to cover the many ways that investors may not care just about discounted total returns or may otherwise deviate from the models described in corporate finance textbooks.

Wrong-termism refers to a focus on a particular time horizon, whether near or far. For example, an investor is subject to wrong-termism if the investor shows special interest in a particular quarter’s earnings, or in the exact market price thirty years. Any such focus counts as wrong-termism, regardless of whether it actually influences investor conduct or corporate policy, and regardless of whether the peculiar focus can ultimately be justified. This Article’s inquiry is about how to detect, study, and solve wrong-termism, whatever term that may be.

While I use the term “wrong-termism” to refer to merely caring about peculiar terms, regardless of the effects, wrong-termism is more interesting when it actually influences corporate policy, which I call the “wrong-termist effect.” And it is more interesting still when its effects are socially costly, which I call “socially inefficient wrong-termism.”

This Article frequently discusses wrong-termism, pointing to observed phenomena in the economy—some investors do fixate on hourly

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3. Cf. Jesse M. Fried, *The Uneasy Case for Favoring Long-Term Shareholders*, 124 *YALE L.J.* 1554 (2015).

stock swings—prior to passing empirical judgments about whether this wrong-termism influences the economy, or normative judgments about whether it is a good thing.

It may seem self-evident that wrong-termism is socially costly since its proponents would push firms off some ideal investment path. However, as this Article will describe, wrong-termism is not categorically inefficient; under some circumstances, it is a second-best solution to agency and liquidity problems. It may be the best an investor can do given constraints inherent in shareholder capitalism.

This is not principally an article about whether wrong-termism is widespread or whether a given practice should be considered wrong-termist. It is an empirical question whether investors do in fact fixate on particular time horizons, just as it is a question of fact whether this fixation actually affects corporate conduct and whether these changes actually affect investment efficiency or aggregate welfare. This Article does not stake a position as to the state of the empirical debate, nor are its conclusions dependent upon any particular state of affairs.

Nor is this an article about whether putative wrong-termism is wrong *as such*. As will be seen, some instances of seeming wrong-termism may well yield important benefits. Rather than taking a categorical stand, the tools within this Article should help scholars to discern and describe whether a given instance of wrong-termism is in fact troublesome.

Time horizons are sometimes code for urging corporate concern for non-shareholder constituencies, such as the public or the environment.<sup>4</sup> Long-termism can also be code for managerialism.<sup>5</sup> While I understand the appeal of fighting about the nature and control of the corporation under the guise of shareholder time horizons, this Article tries to focus on the temporal problem. It will have implications for those other debates, but it is not written in order to accommodate a particular view on those other matters.

## I. THE SOURCES OF WRONG-TERMISM

What sources could give rise to wrong-termism? This Part describes the three plausible sources of wrong-termism. They are: facts

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4. E.g., A. A. Sommer, Jr., *Whom Should the Corporation Serve? The Berle-Dodd Debate Revisited Sixty Years Later*, 16 DEL. J. CORP. L. 33, 52 (1991) (“Concern with the welfare of employees, of communities, of suppliers, of customers is clearly in the interests of shareholders when they are deemed to have a long-term perspective . . .”).

5. See Aleta G. Estreicher, *Beyond Agency Costs: Managing the Corporation for the Long Term*, 45 RUTGERS L. REV. 513, 580 (1993).

about a given investor, beliefs about the relevant assets, and beliefs about other investors. If we observe a great deal of wrong-termism, it may be that individual investors have a generally wrong-termed outlook, or that investors reluctantly adopt wrong-termism because they believe that a particular asset requires it or that others want assets that have been managed for the wrong term.<sup>6</sup> That is, the source can be real or perceived features of: (A) the investor, (B) the asset, or (C) the market. Each of these sources, in turn, come in both a rational and an irrational variety.

These sources of wrong-termism can certainly coexist as contributing explanations for a given instance of wrong-termism. Furthermore, it may prove challenging to detect the relative contribution of these sources in general or in a given case. Importantly, the sources also exhibit a degree of interactivity.<sup>7</sup> Still, it seems to me that these sources of wrong-termism are collectively exhaustive and mutually exclusive at a conceptual level. A marginal increase in wrong-termism can be, in principle, tracked back to a concomitant change in one of these sources of wrong-termism.<sup>8</sup>

#### A. Investor

The first source of wrong-termism I discuss is the investor, both rational and irrational. I begin with a discussion of individual investors and then consider institutional investors in three contexts: (1) mutual funds, (2) money market mutual funds, and (3) pension funds.

Some children eat the marshmallow. Others wait patiently until their bounty doubles.<sup>9</sup> And there may even be some children who so

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6. In a trivial sense, all investor conduct must find its explanation in facts about the investor since something in the investor must explain why *this* investor responded in *that* way given certain facts. Nevertheless, we can distinguish between investor conduct that is *originally* or *distinctively* born in the investor's nature and that is external to the investor. This distinction matters in terms of clear thinking as well as identifying the channels for research and intervention. Investor-derived wrong-termism might exhibit itself in many choices the investor makes, and curing it might result in temporal realignment across a number of investor choices. Externally derived wrong-termism may come into view for a given investor only under certain circumstances, which may be contingent upon interventions in the information and investment environment. If investors are wrong-termists because of their belief about a certain asset or trading environment, we might get a different result if the asset or its environment is changed.

7. See *infra* Parts III.A. and III.B.

8. Assuming no change in the solutions suite that might permit or block some expression of a constant cause of wrong-termism.

9. See generally Walter Mischel, Yuichi Shoda & Monica L. Rodriguez, *Delay of Gratification in Children*, 244 SCI. 933 (1989) (showing that willingness to delay confectionary consumption predicts later SAT scores); Jacoba Urist, *What the Marshmallow Test Really Teaches About Self-Control*, ATLANTIC (2014), <https://www.theatlantic.com/health/archive/2014/09/what-the->

assiduously guard their allotted candy that the treasure expires uneaten; their excessively patient disposition can be just as wasteful as its opposite.

On one model of wrong-terming, investors suffer from marshmallow-like impatience (or the converse—excessive patience).<sup>10</sup> They demand quarterly earnings and dividends rather than long-term research and appreciation because they are dispositionally and irrationally impatient. It is dispositional because it is rooted in investors' character rather than some feature of the outside world, and it is irrational because investors may ultimately regret this conduct. For example, if failure to invest for the long-term results in less long-term gain, the older versions of investors may wish that they had had more foresight in their youth.

This model can draw support from certain behavioral economics research. Individual humans certainly do not make every choice in a temporally neutral and rational fashion.<sup>11</sup> Rather, we often exhibit peculiar behaviors such as hyperbolic discounting: we would *not* accept a steep discount to have money in 100 days instead of 101, but we *would* accept a steep discount to have money in one day instead of two.<sup>12</sup> We may discount similarly when acting as shareholders.<sup>13</sup>

There is some hope that institutions can solve this problem: individual biases may be cancelled out by profit motives, institutional culture, or corporate de-biasing techniques.<sup>14</sup> It does not follow from the fact that children impulsively gorge on marshmallows that investors impulsively gorge on quarterly earnings.

Yet wrong-termism can also arise from institutional dynamics, particularly when we consider the *rational* branch of investor-born wrong-

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marshmallow-test-really-teaches-about-self-control/380673/ [https://perma.cc/5JCT-HQSY] (discussing the Stanford marshmallow experiment).

10. See, e.g., David Millon, *Shareholder Social Responsibility*, 36 SEATTLE U. L. REV. 911 (2013) (arguing that shareholder short-termism is caused by the need to meet current obligations and compete for investment funds, the presence of independent investment advisors, and fiduciary obligations); see also Emeka Duruigbo, *Tackling Shareholder Short-Termism and Managerial Myopia*, 100 KY. L.J. 531 (2012).

11. On behavioral economics generally, see Thomas S. Ulen, *Behavioral Law and Economics: Law, Policy and Science*, 21 SUP. CT. ECON. REV. 5 (2013).

12. On hyperbolic discounting, see David Laibson, *Golden Eggs and Hyperbolic Discounting*, 112 Q.J. ECON. 443, 445 (1997) (“Hyperbolic discount functions are characterized by a relatively high discount rate over short horizons and a relatively low discount rate over long horizons. This discount structure sets up a conflict between today’s preferences, and the preferences that will be held in the future.”).

13. See generally *id.* (modeling the behavior of hyperbolic discounting investors).

14. On the rational behavior of institutions, see Richard H. Thaler & Shlomo Benartzi, *Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving*, 112 J. POL. ECON. S164 (2004) (outlining a de-biasing technique in corporate retirement plans resulting in lower drop-out rates from savings programs and a tripling in savings rates—the technique mitigated the effects of loss aversion and the status quo biases).

termism. While the most commonly alleged versions of investor wrong-termism are surely irrational, others are generally rational responses to an investor's unique and pressing constraints.

Sometimes, investors' constraints arise from the life circumstances of the investor: a criminal defendant may prefer liquid investments because she prioritizes making a suitable bail payment; an employer may care most about asset values at the end of the month because that is when she must make payroll; and a stock picker may prefer earlier (if smaller) gains as a signal of her star potential.<sup>15</sup> Other investors may fear reinvestment risk and cost and, thus, prefer later gains and realizations.<sup>16</sup> Yet other investors may expect hungry creditors—divorcing spouses or stern banks—to plague them for years; thus, early gains may be stripped away, making distant payoffs desirable even if superficially smaller in magnitude.

Sometimes, the law plays a role in constructing investor time horizons and creating investor constraints. That was arguably true in the bail and payroll example above, in that the law insisted upon certain forms of liquidity at certain moments, but there are far more examples in the institutional investment space. Institutional investors, such as pension funds and mutual funds, now own some two-thirds of the investable market.<sup>17</sup> These institutional investors face market and legal pressures that structure their time horizons: mutual fund managers are required to offer redemption to any investor on a few hours' notice; money market funds can legally invest in only short-term instruments; and pension funds face fierce penalties if their assets mature out of sync with their liabilities.

Given the magnitude of institutional investment, it is worthwhile to consider the pressures—institutional and legal—that may lead them to rational wrong-termism.

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15. See Alfred Rappaport, *The Economics of Short-Term Performance Obsession*, 61 FIN. ANALYSTS J. 65 (2005); see, e.g., Lucian A. Bebchuk, Alma Cohen & Scott Hirst, *The Agency Problems of Institutional Investors*, 31 J. ECON. PERSPECTIVES 89 (2017) (describing how investments in governance—presumably rational in the long run—are avoided by fund managers given their own inability to internalize those gains); see also Craig W. Holden & Avanihar Subrahmanyam, *Risk Aversion, Liquidity, and Endogenous Short Horizons*, 9 REV. FIN. STUD. 691 (1996).

16. Austin M. Long, III, *Quantification of Reinvestment Risk in the Private Investment Portfolio*, 4 J. PRIV. EQUITY 70, 70 (2001) (defining reinvestment risk as “the risk that a distribution, when received and reinvested, will not achieve the returns expected upon the making of the original investment . . .”).

17. BD. OF GOVERNORS OF THE FED. RESERVE SYS., FEDERAL RESERVE STATISTICAL RELEASE: FINANCIAL ACCOUNTS OF THE UNITED STATES, SECOND QUARTER 2017, 130 tbl. L.223 (2017) [hereinafter FED. RES. STAT. RELEASE], <https://www.federalreserve.gov/releases/z1/current/z1.pdf> [<https://perma.cc/UP4P-QQM>]. Of the \$33,364.8 billion in equities, \$12,744.4 billion are owned by households and the rest—about \$20 trillion or sixty-one percent—are owned by institutions. *Id.*

## 1. Mutual Funds

Mutual fund managers may have incentives to push issuers to generate and demonstrate gains in particular moments, generally moments near in time, in order to improve their own short-term compensation and accumulate customers over the medium term.

Most mutual fund management companies are paid a fee based on the amount of assets under management; thus, the more customer funds, the more compensation.<sup>18</sup> There is ample evidence that a fund's customer growth depends on its ability to state past returns.<sup>19</sup> It may be better for fund managers to reap an early harvest to signal quality (and so enjoy a large investor following for years to come) rather than to patiently nurture better, but later, opportunities.

The preference for short-term over long-term time horizons is not a linear one, growing with immediacy. Sometimes, particular days (even if a little later in time) are more desirable for making a gain. A fund manager may be paid based on the value of funds under management, but this figure may be computed only at certain intervals, such as the last day of a given month or quarter.<sup>20</sup> Such an investor prefers returns that materialize on those days even if greater gains might have been possible one day before or after.

Even if fund managers don't seek disproportionate gains on early or select days, they may wish to avoid outsize losses in those periods. Mutual funds are currently funded solely by a single class of equity securities,<sup>21</sup> which can be settled for net asset value (NAV) every day.<sup>22</sup> Their potential liability operates on a 24-hour horizon. The ability of fund participants to fully liquidate their positions on any day makes managers conscious of the

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18. See Anne M. Tucker, *The Outside Investor: Citizen Shareholders & Corporate Alienation*, 11 U. ST. THOMAS L.J. 99, 127 (2013) (asserting that intermediary investment companies' short-term time horizons "drive short termism at the operating company level, [intensifying] investment-time-horizon conflict").

19. David K. Musto, *The Economics of Mutual Funds*, 3 ANN. REV. FIN. ECON. 159, 161 (2011) (stating that investors look to past performances to make investment decisions).

20. Cf. Mark Carhart, Ron Kaniel, David K. Musto & Adam V. Reed, *Leaning for the Tape: Evidence of Gaming Behavior in Equity Mutual Funds*, 57 J. FIN. 661 (2002) (stating that price changes at the end of certain days suggest manipulation by fund managers).

21. They face limitations on their asset mix and have limited ability to borrow; thus, they are limited in their asset and liquidity transfer options. See Investment Company Act of 1940 (ICA) § 18(f)(1), 15 U.S.C. § 80a-18(f)(1) (2012) (barring "senior securities"); ICA § 2(a)(36), 15 U.S.C. § 80a-2(a)(26) (2012) (defining securities as any "evidence of indebtedness"); ICA 18f-1, 17 C.F.R. § 270.18f-1 (2017) (permitting a limited quantity of bank debt); ICA 18f-3, 17 C.F.R. § 270.18f-3 (2017) (barring preferred stock). See generally John Morley, *The Regulation of Mutual Fund Debt*, 30 YALE J. ON REG. 343 (2013) (describing the law on mutual fund capital structures).

22. See John Morley & Quinn Curtis, *Taking Exit Rights Seriously: Why Governance and Fee Litigation Don't Work in Mutual Funds*, 120 YALE L.J. 84 (2010) (explaining the dynamics of NAV).

day-to-day movement of invested assets. Managers may prefer that share prices remain stable to prevent rational or irrational sales by fund investors.

## 2. Money Market Mutual Funds

While ordinary mutual funds have flexible liability amounts,<sup>23</sup> and so face less pressure to force their assets to conform to fixed liabilities, the same cannot be said of money market mutual funds.<sup>24</sup> Money market mutual funds promise investors a stable NAV. An investor who buys 100 units of a money market fund at \$1 each is supposed to receive back \$100 when she comes to redeem her interest (perhaps having enjoyed some interest-like payments along the way).<sup>25</sup> The safety and flexibility of money market funds have made them popular as bank deposit substitutes.<sup>26</sup> But, it has come at a price.

The promise to make investors whole, even if the market declines, amounts to a fixed liability claimable essentially on demand. Unlike an ordinary mutual fund, which must redeem investors at their pro rata share of NAV, money funds are permitted to redeem investors at par so long as it is reasonably close to NAV.<sup>27</sup> In theory, an investor might claim \$1 per share, even if the fund has lost money. Withdrawing more than NAV means that later withdrawals may be at less than NAV. The fact that some investors may grab \$1 on a 99¢ investment creates a rational fear in other investors that they may later receive only 98¢. The option to receive \$1 even as the fund struggles creates an incentive to run on the fund. It is the resultant fragility of money funds, and the fragility they transmit to other

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23. Mutual fund liabilities to fund participants *generally* cannot exceed the fund's assets because NAV, the redemption price of shares, adjusts to track the assets. That reduces the incentive of fund managers to demand portfolio companies avoid short-term losses (which, if the fund's liabilities were fixed in magnitude, would put the fund in a fix, at least in the short term), but it does not eliminate it, in part for the reasons just discussed. Another reason is that a limited amount of debt *is* permitted for investment funds.

24. See *generally* Jill E. Fisch, *The Broken Buck Stops Here: Embracing Sponsor Support in Money Market Fund Reform*, 93 N.C. L. REV. 935 (2015) (explaining the mechanics and risks of money mutual funds).

<sup>25</sup> 25. See Musto, *supra* note 19, at 164 (stating that money market mutual funds keep their price at \$1 per share and maintain their portfolios to the short end on the yield curve).

26. See *id.* (stating that money market mutual funds are similar to banks in that they keep their price at \$1 per share and their portfolios to the short end of the yield curve, making them a popular bank substitute).

27. Patrick E. McCabe et al., *The Minimum Balance at Risk: A Proposal to Mitigate the Systemic Risks Posed by Money Market Funds*, BROOKINGS PAPERS ON ECON. ACTIVITY, Spring 2013, at 211, 215.

actors in the system, which lately made money funds the subject of ample scholarship as potential sources of systemic risk.<sup>28</sup>

Their fixed liabilities and risk of runs gives money market funds a fiercely short time horizon. This natural incentive is coupled with legal restrictions requiring the money market fund to invest only in peculiarly safe and liquid securities; the money fund must not find itself bearing the risk of a long-term prospect that is risky in the meantime.<sup>29</sup> Money funds, therefore, seek out investments that are easy to liquidate or are self-liquidating on a short-term basis and which are extremely unlikely to decline in value over any given time window.<sup>30</sup>

In theory, money funds' short time horizon might make them powerful advocates for short-term policies at companies, urging issuers to forgo long-term projects that might leave the issuer cash-strapped in the next few days. In practice, this problem does not arise because money funds exercise little governance oversight. Instead, they flee problematic issuers at the drop of a hat.<sup>31</sup> Money funds exercise asset transfer (selling assets to other investors) and liquidity transfer (ceasing to lend to these issuers) rather than control.

However, lack of control does not mean that money funds do not exert a wrong-term influence on companies. To the contrary, the fund's demand for safe assets puts tremendous pressure on the system to produce assets that can be bought and abandoned in this way.<sup>32</sup> Issuers receive a terrific cost of funds advantage if they can offer short-term instruments to money market funds.

This creates a bevy of risks and incentives for issuers. Should they take long-term projects? Doing so exposes them to maturity mismatch—with any decline in interest in debt they would face a funding shortfall until longer lived projects mature. Should they forswear long-term projects? If so, valuable projects are avoided in deference to volatile liabilities.

We are familiar with both choices from the financial crisis. Large investment banks came to rely almost exclusively on overnight and short-term unsecured borrowing to finance operations that obviously had longer arcs and greater risks than their creditors would have accepted. Once short-

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28. See Mark Perlow, *Money Market Funds—Preserving Systemic Benefits, Minimizing Systemic Risk*, 8 BERKELEY BUS. L.J. 74 (2011). See generally Hilary J. Allen, *Money Market Fund Reform Viewed Through a Systemic Risk Lens*, 11 J. BUS. & SEC. L. 87 (2010).

29. See Allen, *supra* note 28, at 89–92.

30. *Id.*

31. See, e.g., Gary B. Gorton & George G. Pennacchi, *Security Baskets and Index-Linked Securities*, 66 J. BUS. 1 (1993).

32. See Kathryn Judge, *Investor-Driven Financial Innovation*, 7 HARV. BUS. L. REV. (forthcoming 2019), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3068991](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3068991).

term credit became uncertain, these institutions faced risks to manage themselves and their investments in ways that would soothe or placate their short-term creditors, even if it meant sacrificing long-term franchise value or accumulating substantial long-term liabilities.<sup>33</sup>

### 3. Pension Funds

Not all wrong-term investors are clearly short-term investors. Consider another important category of time constrained investor: federally regulated defined benefit pension funds. Pension funds control about \$18 trillion in assets,<sup>34</sup> of which approximately half are for the benefit of private sector workers.<sup>35</sup> More than \$3 trillion are allotted to private *defined benefit* pension plans.<sup>36</sup>

Pension funds exist to provide a dependable retirement income or benefits package for retirees. Pension fund managers must carefully manage their investment program because their liabilities are largely fixed. Within reason, fund managers know exactly what they will owe and when.<sup>37</sup> A fund may know that it will begin making substantial payments starting in five years and terminating in fifteen years.

The predictable nature of pension fund liabilities creates a potent incentive for wrong-terming. An investment that pays a great deal but matures only after thirty years will be of little interest to the fund, at least by itself. The fund must make all of its payments long before the investment matures, and so the fund may pressure firms to undertake projects with shorter repayment cycles.

Of course, it is easy to imagine how a thirty-year project may still be financed. If the associated investment asset is liquid and riskless, then a fund could sell it at year fifteen, perhaps even to another pension fund. Likewise, if the fund can readily borrow, then the fund could pay its liabilities with debt and eventually repay the loan with the investment. Thus, there are some alternatives to tailoring investment maturity to fund time horizon.

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33. For example, manipulating Libor was a fine way to generate extra revenue in the short term, but it resulted in billions of dollars of fines, as well as an end to the banks' valuable control over the rate. See generally Gabriel Rauterberg & Andrew Verstein, *Index Theory: The Law, Promise and Failure of Financial Indices*, 30 YALE J. ON REG. 1 (2013).

34. FED. RES. STAT. RELEASE, *supra* note 17, at 94 tbl. L.117.

35. *Id.* at 95 tbl. L.118.

36. *Id.*; see Michael J. Cohen, *Questioning How the Bankruptcy Priority Scheme Treats Tax Claims Arising from the Termination of Overfunded Pension Plans*, 70 FORDHAM L. REV. 2437, 2443 (2002) (defining "defined benefit" plan with regard to Employee Retirement Income Security Act (ERISA)).

37. Of course, there are many ways in which these actuarial expectations may prove wrong: we live longer than we used to.

Still, the penalties for failing to meet pension obligations are severe.<sup>38</sup> There is a huge downside risk for underfunding. If the investment is not perfectly riskless and liquid, the fund could find itself without the ability to make payments at the appointed time.

Moreover, the payoff from accepting a time horizon risk is limited because the law imposes penalties for overfunding pensions. A fifty percent excise tax is applied on top of the standard corporate rate if excess assets revert to the plan sponsor at termination.<sup>39</sup> If you put more money into a pension than proves necessary or generate more investment gains than you end up needing, you may lose much of the balance.<sup>40</sup> The reason for the excise tax is to discourage corporate raiders from pillaging pension funds. However, a byproduct of the excise tax is that it blunts a fund sponsor's incentives to find the best overall investment, and it proportionately increases the incentive to simply pick an investment that fits its own investment horizon or forces existing investments to conform to that horizon. Right-termed investments may have better expected returns, but pensions do not fully internalize this improved return.

Wrong-termism may therefore dominate pension fund investment strategy. This is certainly the outlook that many pension fund commentators endorse. For example, Michael W. Peskin, former head of Morgan Stanley's pension advisory group, argued that "a public pension plan's proper objective should be to provide intended benefits at the lowest cost."<sup>41</sup> Investment composition should be "[v]irtually dictated by nature of liabilities and funded status."<sup>42</sup> Other considerations such as risk-adjusted return, "[m]inimi[z]ing] cost per unit of volatility of

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38. Along the way, taxes are imposed on plan sponsors who fail to adequately provision for future liabilities. The excise tax is ten percent of the underfunding plus an additional 100% if the deficit is not corrected within a specified time period. *See* 26 U.S.C. §§ 302(a)(2), 412(a), 4971 (2012); 29 U.S.C. § 1082(a)(2) (2012). It is a violation of the duty of prudence for an investment manager to fail to take the recipient's liquidity needs into account in investing. *See* *GIW Indus. v. Trevor, Stewart, Burton & Jacobsen, Inc.*, 895 F.2d 729, 733 (11th Cir. 1990).

39. I.R.C. § 4980 (2012). *See generally* Christopher G. Guldberg, *The Sale of Overfunded Pension Plans and Indirect Reversions*, 32 J. CORP. TAX'N 40, 40 (2005). The excise tax drops to only twenty percent if the employer devotes the surplus to a "qualified replacement plan." I.R.C. § 4980(d) (defining such plans). This excise tax emerged in response to the perceived tendency of acquirers pillaging over-funded pension plans of target companies. Jeffrey N. Gordon, *Employees, Pensions, and the New Economic Order*, 97 COLUM. L. REV. 1519, 1543 (1997) (describing concerns about these pension reversions). In addition, no reversion of excess funds may be paid, taxed or otherwise, until all employee and beneficiary liabilities have been satisfied. 26 U.S.C. § 401(a)(2) (2012).

40. Plan sponsors could just distribute the surplus to plan beneficiaries, but this would amount to getting *nothing* back of the excess. A fifty percent excise tax will seem better in a great many situations.

41. Michael Peskin, *Asset/Liability Management in the Public Sector*, in *PENSIONS IN THE PUBLIC SECTOR* 195, 195 (Olivia S. Mitchell & Edwin C. Hustead eds., 2001).

42. *Id.* at 196.

cost[,] . . . [or] overall peer group comparison [are] not relevant.<sup>43</sup> With such a temporally defined investment plan, pension funds are candidates for investor-born wrong-termism.<sup>44</sup>

### B. Asset

A second source of wrong-termism, asset- or investment-born wrong-termism, is that which is explained in terms of facts about particular issuers. For example, investors may rightly or wrongly believe that the best way to gain from certain assets is to insist that managers of those assets focus their attention on short-term objectives—regardless of whether other investments deserve similar treatment and regardless of the investor's own appetite for returns. Asset wrong-termism is, therefore, born of an instrumental and empirical belief about how temporal bounding can improve overall performance.

Some versions of apparent wrong-termism have enjoyed widespread support at times as solutions to asset-related problems. For example, it is common to support firm debt incurrence (often in connection with dividend payments) because the need to meet periodic interest payments can discipline managers by forcing them to attend to short-term cash flow, which helps reduce wasteful and lackadaisical conduct, even though it may reduce their ability to grow and take all worthwhile investments.<sup>45</sup>

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43. *Id.*

44. The fact that this is advised does not guarantee that it is followed. Munnell and Soto found that the share of S&L plan assets in equities has grown in parallel with private sector share—from forty percent in the 1980s to seventy percent in 2007. ALICIA H. MUNNELL & MAURICIO SOTO, CTR. FOR RET. RESEARCH AT BOS. COLL., STATE AND LOCAL PENSIONS ARE DIFFERENT FROM PRIVATE PLANS 5 (Nov. 2007), <https://pdfs.semanticscholar.org/d2ce/c4f37453bee2aa89a6c2a166e7c748d6b6dd.pdf> [<https://perma.cc/G63V-HUMK>]. This led to a loss of \$1 trillion of state and local defined benefit equity assets from 2007 to 2008. *See* ALICIA H. MUNNELL ET AL., CTR. FOR RET. RESEARCH AT BOS. COLL., THE FINANCIAL CRISIS AND STATE/LOCAL DEFINED BENEFIT PLANS 1 (Nov. 2008), <https://dlib.bc.edu/islandora/object/bc-ir:104316/datastream/PDF/view> [<https://perma.cc/KC7Z-M6GG>]. Perhaps more importantly, we are all aware that many pension funds—particularly state and local government pensions—are underfunded, suggesting little regard for the time structure of their liabilities. *See generally* Natalya Shnitser, *Funding Discipline for U.S. Public Pension Plans: An Empirical Analysis of Institutional Design*, 100 IOWA L. REV. 663 (2015) (analyzing key determinants of underfunding).

45. *See* Sanford J. Grossman & Oliver D. Hart, *Corporate Financial Structure and Managerial Incentives*, in *THE ECONOMICS OF INFORMATION AND UNCERTAINTY* 107 (John J. McCall ed., 1982) (integrating elements from agency, property rights, and finance to explain firm ownership structure); Mathias Dewatripont & Jean Tirole, *A Theory of Debt and Equity: Diversity of Securities and Manager-Shareholder Congruence*, 109 Q.J. ECON. 1027 (1994) (presenting a theory of capital structure of firms that complements incentive schemes to discipline managers); Oliver Hart & John Moore, *A Theory of Debt Based on the Inalienability of Human Capital*, 109 Q.J. ECON. 841 (1994) (characterizing the optimal repayment path and showing how it is affected both by the maturity structure of the project return stream and by the durability and specificity of project assets); Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and*

Another instance of wrong-termism supported by reference to the asset concerns research and development (R&D) spending. Firms may pursue short-term projects rather than long-term R&D investments if their investors find it costly to verify the benefits of the R&D.<sup>46</sup> Similar ideas have been advanced for whole categories of short-term behavior.<sup>47</sup>

Whether any of the forgoing practices actually serve the interests of investors is the subject of intense debate, so it is difficult to brand any of them as clearly rational or irrational. Obviously, efforts to marshal resources through short-horizon cash realization can be unwise. For example, consider one proposal that has not found widespread support in the United States yet is actually law in five nations: mandatory payment of substantial annual dividends.<sup>48</sup>

Dividend payments in the United States are, for the most part, discretionary and subject to the board's consideration.<sup>49</sup> One rationale for this is that dividend payments are sometimes not the wisest strategy for a firm. After making a dividend payment, a cash-constrained firm may find itself unable to pursue a profitable business opportunity.<sup>50</sup> The real cost may be substantial and outweigh whatever benefits come from regular dividend payments.

Nevertheless, several nations have determined that this mandatory rule is appropriate and implemented it.<sup>51</sup> We might characterize this as a practice—backed by a rule—reflecting an irrational belief about issuers, at least in many contexts: issuers are so likely to squander idle cash that it is best to return it to shareholders now, even in the face of excellent middle-term investment opportunities.<sup>52</sup>

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*Ownership Structure*, 3 J. FIN. ECON. 305 (1976). See generally Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, 76 AM. ECON. REV. 323 (1986) (explaining the role of debt in motivating organizational efficiency).

46. See generally Ricky W. Scott, *Do Institutional Investors Influence R&D Investment Policy in Firms with High Information Asymmetry?*, 7 INT'L BUS. RES. 22 (2014) (showing how retail investor ownership discourages R&D in firms with high information asymmetry).

47. See generally Richard T. Thakor, *A Theory of Efficient Short Termism* (Aug. 2016) (unpublished manuscript), <https://ssrn.com/abstract=2821162> (arguing that short-term projects can limit managerial rent-seeking).

48. The five countries are: Brazil, Chile, Colombia, Greece, and Venezuela. Theo Cotrim Martins & Walter Novaes, *Mandatory Dividend Rules: Do They Make It Harder for Firms to Invest?*, 18 J. CORP. FIN. 953, 953 (2012).

49. See *Kamin v. Amex*, 383 N.Y.S.2d 807, 812 (N.Y. Sup. Ct. 1976).

50. Even if outside financing is available, financing from existing cash flows can often be the cheapest approach.

51. Martins & Novaes, *supra* note 48.

52. In Brazilian firms, Martins and Novaes find no evidence of reduced investment activity. *Id.* at 954. Presumably, this is because much of this dividend amount would actually have not gone to finance investments; the civil law countries that have adopted this rule may have been prone to excessive tunneling of profits. La Porta et al. have hypothesized that low dividends in these

*C. Market*

The third source of wrong-termism is the market. An investor may neither have a specific view about the benefits of short-termism in managing a certain asset class nor have an inborn short-term outlook; yet, the investor may still take a short-term perspective on things if she believes that secondary markets reward a short investment fuse. For example, if all *other* investors believe that short-termism helps to drive efficient investment, or all other investors are temperamentally myopic, it might pay to serve up short-term investment opportunities to those other investors. You can accommodate their disciplinary or temperamentally short-term outlook by acting as though you have a short-term perspective yourself.

Some market-born short-termists may be opportunistic in the extreme, cynically taking advantage of secondary market behavior that they consider irrational. For example, Cremers et al. describe, and purport to document, that activist investors profit from short-term strategies.<sup>53</sup> In particular, they argue that these firms take a position, advocate for changes that are likely to disrupt long-term value, but sell before that effect is observed.<sup>54</sup> The activists enjoy frequent and small spikes of value, which are more than paid for by investors too foolish or myopic to discount the price they will pay for such shares.<sup>55</sup>

Others may consider themselves reluctant victims in short-termism. Recall Keynes's quip on these points: "The market can stay irrational longer than you can stay solvent."<sup>56</sup> Sometimes, the only way to stay afloat may be to swim in a school with the other fishes.

Or, sometimes, it may only seem like the market overpays for wrong-termed assets; instead, some market-born short-termism may be unwise and unprofitable. Investors may attribute short-termism to others that are simply not there. They may think that they are playing Keynes's beauty contest when the market is actually driven by fundamentals. This sentiment is certainly the refrain from the main line of corporate law that current share prices sufficiently reflect long-term cash flows and that only

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jurisdictions work to disadvantage minority investors. See generally Rafael La Porta et al., *Agency Problems and Dividend Policies Around the World*, 55 J. FIN. 1 (2000). Mandatory dividends might indeed be a rational technique to control majority shareholder extractions in those jurisdictions. Presumably, such a rule would be less justified in a jurisdiction like the United States, where controlling shareholder extractions are constrained by numerous other forces.

53. K.J. Martijn Cremers et al., *Hedge Fund Activism and Long-Term Firm Value 5–7* (Dec. 14, 2015) (unpublished manuscript), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2693231](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2693231).

54. *Id.*

55. *Id.*

56. ROGER LOWENSTEIN, *WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT* 123 (2000) (attributing this quotation to Keynes).

fools would think they can make money by pillaging long-term investments and flipping them to a myopic public.<sup>57</sup>

While it is always hard to determine what was rational when and for whom, we can generate plausible examples of this sort too. Consider the Home of the Whopper, Burger King.<sup>58</sup> Burger King has been under constant managerial and ownership turnover.<sup>59</sup> The company has had thirteen CEOs in twenty-five years.<sup>60</sup> It has been under the private management of several firms in that period, brought to public markets twice, and taken private again.<sup>61</sup> Burger King was owned by Pillsbury, Grand Metropolitan, Diageo, Bain Capital, TPG, and 3G Capital.<sup>62</sup> At each stage, its cash has been pared off for fees and its business restructured to

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57. See RICHARD A. BREALEY, STEWART C. MYERS & FRANKLIN ALLEN, *PRINCIPLES OF CORPORATE FINANCE* 23–24 (8th ed. 2006) (stating that positive net present value projects increase value to the firm); see also Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 884 (2005) (“[C]onsider[ing] the potential costs that might be caused by shareholders with short horizons, such as institutional investors and traders that follow high-turnover strategies . . . [i]t is far from clear that the governance provisions favored by such shareholders would commonly deviate from those favored by long-term shareholders. If a governance arrangement is widely viewed as detrimental to long-term share value, its long-run effect will likely be reflected in the company’s stock price when the arrangement is adopted, and thus the short-run effect of its adoption will likely be negative as well.”); Joseph P. Farano, *How Much Is Too Much? Director Equity Ownership and Its Role in the Independence Assessment*, 38 SETON HALL L. REV. 753, 774–75 (2008) (“With all projects—regardless of duration—priced into the present value of the entity, rational directors should not take a short-term view, even if their motives are purely financial and short-term, because capital markets will discount the present market value of a firm based on a project’s long-term effect on the value of the company. Therefore, short-term decisions will be discounted in the present stock price, thwarting the ability to make quick changes and ‘cut and run’ with a short-term gain.”). If stock prices are accurate, then time horizon problems can be solved simply by linking manager pay to stock prices. William W. Bratton, Jr., *The New Economic Theory of the Firm: Critical Perspectives from History*, 41 STAN. L. REV. 1471, 1495 (1989) (“Since growth ultimately raised the level of dividend return, it manifested itself in present capital appreciation, that is, a higher stock price. Thus, long-term industrial stability and short-term profit came into balance, or so it seemed.”); William J. Carney, *Controlling Management Opportunism in the Market for Corporate Control: An Agency Cost Model*, 1988 WIS. L. REV. 385, 416–17 (1988) (“Option plans have the particular advantage of including rewards for expected long-term increases in investor wealth, because stock prices reflect the entire future stream of expected payments to shareholders, discounted to present value. These payments also solve the time horizon problem, where managers expect to be in their current position for only a relatively brief span.”). But see WILLIAM W. BRATTON & JOSEPH MCCAHERY, *INSTITUTIONAL INVESTOR ACTIVISM: HEDGE FUNDS AND PRIVATE EQUITY*, ECONOMICS AND REGULATION 742 (2015) (“[M]aximizing the corporation’s fundamental value and maximizing its stock price can amount to distinct objectives in the presence of information asymmetries.”).

58. Joe Nocera, *Burger King, the Cash Cow*, N.Y. TIMES (June 23, 2012), <http://www.nytimes.com/2012/06/23/opinion/nocera-burger-king-the-cash-cow.html>.

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.*

make the next flip more attractive.<sup>63</sup> One result of these transactions is that Burger King has lagged behind competitors such as McDonalds,<sup>64</sup> which may have devoted more resources to expanding and improving their businesses. While it is possible that all of these moves were rational for each player, we might also think that someone on the chain misunderstood what the market wanted and reoriented the business to suit the perceived myopia of buyers who would have actually preferred a business on firm footing instead.

The following figure summarizes the taxonomy of wrong-termism.

Sources of Wrong-Termism					
Investor		Asset		Market	
Rational	Irrational	Rational	Irrational	Rational	Irrational
Idiosyncratic liquidity profile, legal constraints, institutional dynamics (e.g., pension fund)	Myopia (e.g., Twitchy preference for dividends over ordinary maintenance)	Second-best effort to constrain agency costs (e.g., disciplining effect of debt)	Excessive doubt about future-oriented investment (e.g., mandatory dividends in U.S.)	Pump and Dump Activism (e.g., the sort described by Cremers & Sepe)	Sacrificing business fundamentals to meet perceived demand (e.g., Burger King Serial IPO)

## II. RESPONSES TO WRONG-TERMISM

Just as we have charted the sources for wrong-termism's troubled waters, we can also map the turns that scholars and policy makers can take to best respond. Here, I highlight two important categories of policy response: altering shareholder power and facilitating certain market transactions (or "portfolio" responses). It is fair to say that the wrong-termism debate has mostly considered the former in recent years.

Faith in the power of markets to solve wrong-termism has led many to doubt the existence of wrong-termism.<sup>65</sup> To put it another way, some are confident that we have *already* pursued the market solution to wrong-termism. Yet, there is less talk about how any remaining wrong-termism might be affected by marginal increases in market efficiency. Indeed, the main point of this Part is to highlight some forgotten or unconsidered ways

63. *Id.*

64. *Id.*

65. *Cf.* Kent Greenfield, *The Puzzle of Short-Termism*, 46 WAKE FOREST L. REV. 627 (2011) (considering whether short-termism will be eliminated in an efficient market).

in which the market can help solve wrong-termism without altering shareholder power dynamics, which are then developed in Part III.

Adjustments to investor power and portfolio are certainly not the only two categories of responses to wrong-termism. One important category of response concerns research and dissemination of knowledge. If our best social science reports that certain governance patterns lead to inefficient telescoping of investment horizons, those patterns may become less popular with their supposed beneficiaries. Shareholders may clamber less (or more) for quarterly earnings if they are persuaded by conferences such as these that quarterly capitalism hurts them (or the other way around). There is surely a place for research and reason, as well as coercion and market lubrication.

#### *A. Power*

To the degree that investors are wrong-termists, they may use their leverage over company managers to demand wrong-term investment. If we are confident that this occurs and is inefficient, one strategy may be to limit investor influence in a variety of ways. Then managers will have the freedom to pursue optimal investment strategies, whatever their duration.

For those convinced of shareholder wrong-termism, a plethora of practices and legal interventions have been praised for their diminution of shareholder influence. Staggered boards are now back in fashion as ways to preserve board continuity and delay hostile changes of board composition.<sup>66</sup> So are poison pills, which are legal technologies that punish uninvited acquirers.<sup>67</sup> To combat coordinated campaigns of activist hedge funds (i.e., “wolf packs”), some scholars would toughen up the Williams Act<sup>68</sup> and tighten insider trading laws.<sup>69</sup> Unsurprisingly, those doubtful of the existence of harmful wrong-termism have resisted these interventions and urged the opposite.<sup>70</sup>

While investor-power modifications are a highly salient domain for addressing wrong-termism, it is a potentially costly area for intervention.

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66. See Martijn Cremers et al., *The Value of Takeover Defenses: Evidence from Exogenous Shocks to Closed-End Mutual Funds* 18 (Jan. 22, 2015) (unpublished manuscript), [http://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1065&context=law\\_econ](http://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1065&context=law_econ).

67. See generally *id.*

68. Coffee, Jr. & Palia, *supra* note 2, at 595–98 (arguing that the Section 13(d)(1) disclosure window should be closed or shortened and that 13D filings should be more liberally required for arguable members of the activist “group”).

69. *Id.* at 598–600 (arguing for more expansive Rule 14e-3 restrictions).

70. See, e.g., Lucian A. Bebchuk & Robert J. Jackson, Jr., *The Law and Economics of Blockholder Disclosure*, 2 HARV. BUS. L. REV. 39 (2012) (arguing against rules antagonistic to hedge fund activism).

First, managers may also suffer from wrong-termism. In that case, the balance of power between investors and managers may involve balancing their offsetting wrong-termisms rather than protecting right-termism.<sup>71</sup> Second, efforts to limit shareholder power leave managers unconstrained, aggravating traditional agency problems familiar to readers of Berle, Means, Jensen, and others. This may be a price worth paying, but it would be better not to pay it at all.

Are there solutions to wrong-termism other than a referendum on managerialism? The next suite of solutions offers the promise of Pareto improvements: if voluntary market transactions can reduce wrong-termism, there may be solutions with few victims.

### *B. Portfolio*

If investors demand returns on the wrong term, their different investment rhythms can be reconciled with that of their investments by changing the investor's portfolio composition. The idea that liquid markets can solve horizon problems is comforting and familiar. For example, Larry Cunningham recently wrote,

Shareholders may be arrayed on a highly delineated range of time horizons, from minute-to-minute short-term day traders fastened on price fluctuations to long-term devotees of fundamental value. The populations may vary with different corporations and economic climates. With efficient markets, this short-term-long-term dichotomy would not exist.<sup>72</sup>

It is true that markets *are not* perfectly efficient, but perhaps they are already efficient enough to help, and perhaps we can improve their efficiency in order to further solve wrong-termism. If various kinds of market-based reshuffling can be achieved, then investor time horizon problems may be laundered through better matching.

One solution, which we can call "liquidity transfer," involves intertemporal swapping of cash. Wrong-term investors can be appeased by granting them cash in their preferred period, financed by less consumption

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71. See Michal Barzuza & Eric L. Talley, *Short-Termism and Long-Termism* 9–10 (Va. Law and Econ., Research Paper No. 2, 2016; Univ. of Cal. Berkeley Pub. Law, Research Paper No. 2731814, 2016; Columbia Pub. Law, Research Paper No. 14-503, 2016; Columbia Law and Econ., Working Paper No. 526, 2016), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2731814](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2731814).

72. Lawrence A. Cunningham, *A New Legal Theory to Test Executive Pay: Contractual Unconscionability*, 96 IOWA L. REV. 1177, 1188 (2011).

in another period rather than hasty or slothful portfolio company investment.

A second solution we can call “asset transfer.” Asset transfer involves wrong-term investors selling their entitlements to temporally neutral investors so that the wrong-termer can buy assets that naturally mature at their preferred time.<sup>73</sup>

A third portfolio solution refuses to take investor time horizons as a given, instead seeking to exploit the plasticity of investor time horizons. When the horizon is driven by particular liabilities, we can solve the horizon problem by alienating or quenching those liabilities. This approach, which is rarely considered, we can call “liability transfer.”

To put this response into the metaphor of the best time for harvest, the previous section considered restraining impatient farmers to prevent early (or late) harvest. This Section contemplates farmers buying imported food on credit (liquidity transfer) to have something to eat until their own crops are ready; trading their farms for the farms of others, which are already in full bloom (asset transfer); or, most peculiarly, swapping *appetites* with others (liability transfer).

### 1. Liquidity Transfer

The earliest and most elegant response to wrong-termism in the finance literature comes from Irving Fisher in the form of his Separation Theorem.<sup>74</sup> Fisher sought to prove that wrong-termism is not a problem in efficient markets because firms are able to separate their internal business or investment decisions from their outward-facing financing decisions.<sup>75</sup> Any wrong-termism among investors should not influence firm conduct because the maximizing strategy for each investor (long- and short-term alike) is to demand the wealth maximizing corporate strategy. Although Fisher’s Separation Theorem is well-known in the finance literature, and it was once a mainstay in legal theory,<sup>76</sup> it has been seldom mentioned in

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73. The counter party may also be prone to wrong-termism, so long as it is offsetting and opposite in its direction.

74. Fisher presented this idea in various forms in several books. *See generally* IRVING FISHER, THE NATURE OF CAPITAL AND INCOME (1906) [hereinafter FISHER I]; IRVING FISHER, RATE OF INTEREST: ITS NATURE, DETERMINATION AND RELATION TO ECONOMIC PHENOMENA (1907) [hereinafter FISHER II]; IRVING FISHER, THE THEORY OF INTEREST AS DETERMINED BY IMPATIENCE TO SPEND INCOME AND OPPORTUNITY TO INVEST IT (1930) [hereinafter FISHER III].

75. *See generally* FISHER III, *supra* note 74.

76. *See, e.g.*, Roberta Romano, *A Comment on Information Overload, Cognitive Illusions, and Their Implications for Public Policy*, 59 S. CAL. L. REV. 313, 325 (1986) (applying Separation Theorem to caution against hasty application of behavioral insights to corporate law).

the last forty years in law review articles.<sup>77</sup> So it bears repeating the essence of Fisher's argument.

Imagine two wrong-term investors: one investor ("Grasshopper") would like a large payout as soon as possible, and another ("Ant") would like to defer any gains for as long as possible. Imagine that they are both shareholders in a manufacturing company that would operate most efficiently if it retained some of its profits for the business's future planning (to the consternation of impatient Grasshopper), but could not efficiently use *all* its cash in this way. To put numbers on these things, we can imagine that Hive, Inc. has \$100 on hand, and that Hive can earn a risk-free twenty-five percent return on up to \$60 reinvested from period 1 to period 2, in a world where the prevailing interest rate is only ten percent. If the investors were silent, we can imagine Hive's management paying \$40 dividend in period 1, reinvesting \$60, and then paying out \$75 in period 2. But we may fear that short-term Grasshopper wants an immediate \$100 dividend and that long-term Ant might demand that the factory somehow accept excessive investment order to accommodate additional funds.

Fisher showed that there is no need for investors to clamor for their preferred return period, nor for firms to capitulate to those demands, so long as credit-markets are efficient.<sup>78</sup> If Hive can borrow at the prevailing rate, it can summon up some money for Grasshopper without curtailing investments. Hive can borrow \$60 in period 1 in order to have \$100 ready for a dividend (\$60 in borrowed money and \$40 in the form of the dividend already natural for payment). Hive will then still get to invest \$60 in the business as planned. In period 2, Hive will owe \$66 (the principal, plus \$6 interest at the prevailing ten percent rate), which it can repay from the \$75 yielded by the investment. The \$11 leftover is Grasshopper's reward for being impatient in *the right way*. Alternatively, we could in fact zero out second period payments by having the firm borrow not \$60 but \$69.18 in the first period.<sup>79</sup> Then Hive could pay Grasshopper a dividend of \$109.18 in the first period and nothing in the second period. Again, Grasshopper is much better off for allowing the firm to separate his impatience from the firm's investment decisions. Likewise, Hive could accommodate Ant's hyperbolic discounting by reinvesting all her first period dividend at the

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77. One recent article extensively utilized the Separation Theorem. See Herbert J. Hovenkamp, *Neoclassicism and the Separation of Ownership and Control*, 4 VA. L. & BUS. REV. 373, 381–82, 383–86 (2009) (discussing Separation Theorem as part of the package of neoclassical corporate thought); See generally Daniel F. Spulber, *Discovering the Role of The Firm: The Separation Criterion and Corporate Law*, 6 BERKELEY BUS. L.J. 292 (2009).

78. See FISHER III, *supra* note 74.

79.  $\$69.18 * 1.1 = \$75$ . \$69.18 is the number that grows to \$75 at the promised rate of return.

prevailing rate of interest.<sup>80</sup> Thus, her first period \$40 dividend will grow to \$44 by the second period. There is no need for Hive to force uneconomic investments in the factory to accommodate the extra cash. Ant will get \$119 (\$75 + \$44) in the second period.

Not only can Hive ignore its investors' time preferences so long as it can borrow and lend freely, but the same result obtains if those investors can themselves borrow and lend freely. When impatient Grasshopper wants \$100 (or \$110) right now, he can immediately borrow the \$60 (or \$69.18) necessary to combine with the \$40 dividend. He will owe \$66 (or \$75) later, which he can pay from his share of the period 2 \$75 dividend. Likewise, Ant can reinvest her unwanted period 1 \$40 dividend at the prevailing rate, and compound a \$44 gain on top of her period 2 dividend. If capital markets are perfect, then investors can have optimal liquidity in all periods and never need to push firms to alter their optimal investment horizons.

Of course, liquidity transfer is not costless, and credit markets are not perfect. Many individuals face inferior credit opportunities relative to firms and relative to one another. It is not risk-free to lend. Essentially no one can borrow at the same rate at which they lend. Almost all borrowers have hard constraints on their borrowing capacity, and those limits are often quite low. Still, liquidity transfer obviously plays some theoretical role in solving the wrong-termism problem, at least on some conceptions of the problem.

## 2. Asset Transfer

Even if credit-markets are imperfect, other aspects of the market, such as asset transfers, could help us overcome wrong-termism. If wrong-term investors can liberally buy and sell assets, then they can alienate mismatched assets to investors better suited to owning them, and they can accordingly buy assets befitting their own time horizon. An impatient investor can sell a long-term asset in exchange for a mature or liquidating dividend payer. The buyer may be right-termed or wrong-termed on the other side, and will in any case value the long-term option more highly. The smart myopic investor sells too early rather than squeezing out early harvests.

Adolf Berle's own writings finely display this asset transfer cure to the problem of horizon diversity:

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80. See David Eil, *Hypobolic Discounting and Willingness-to-Wait* (George Mason Univ. Interdisciplinary Ctr. For Econ. Sci., Dep't of Econ., Working Paper No. 12-28, 2012), <https://ssrn.com/abstract=2087098> (defining "hypobolic" discounting as the opposite of hyperbolic discounting).

In older times, probably, investments were conditioned by the needs of the investor. He made his loan or his investment with some eye to the time when he might need to withdraw it for more personal use, as to provide for his old age, to set up his son in business, or the like. Modern business precludes in large measure even the possibility of such arrangements. Capital once invested in a railroad or a steel plant cannot be subject to withdrawal; only in limited measure can it be the subject of refinancing operations—paying out one group of investors with the contributions of another group. . . . This economic fact would alone account for the necessity of maintaining a market.<sup>81</sup>

Berle argues for the importance of laws against market manipulation as partial redemption of the world of horizon-driven investment. With a vibrant secondary market for securities, even short-term investors can make capital investments of unlimited duration. Manipulation must be stopped because secondary markets can only do their work in horizon-proofing our investments if they are robust enough for investors of all horizons to trust in them.

Of course, the market is not perfect. There is market manipulation. And even without such predation, there are transaction costs in selling or buying any stock. Those costs can be very high for certain illiquid securities, such as shares in closely held family businesses or almost any bonds.

The law also imposes some limits to asset transfer. Investors who own 10% of a publicly traded company are deemed insiders for the purposes of the Williams Act.<sup>82</sup> Such investors are subject to Section 16(b) of the Securities Exchange Act of 1934, which requires disgorgement of short-swing profits.<sup>83</sup> It effectively blocks the rapid sale and purchase of large blocks of securities.

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81. A. A. Berle, Jr., *Liability for Stock Market Manipulation*, 31 COLUM. L. REV. 264, 266 (1931). A footnote from the first sentence goes on:

This is still true of the small real estate mortgage. Where granted by an individual investor or by a mortgage company or bank, the mortgage is made to mature when the lender believes either that he will need the money or that he will be able to find more profitable use for it. Aside from this form of investment, the theory that an investment can be withdrawn to meet some need of the investor seems to have been rather definitely discarded. This is as true of the long-term bond as it is of the stock.

*Id.* at n.4.

82. Williams Act of 1968, Pub. L. No 90-439, 82 Stat. 455 (codified as amended in scattered sections of 15 U.S.C., including §§ 13(d), 13(e), 13(g), 14(d), 14(e), and 14(f)).

83. 15 U.S.C. § 78p(b) (2012).

### 3. Liability Transfer

As did Berle, we often assume that our liabilities are fixed and given. But investors can choose to restructure their liabilities in light of their investment possibilities. If an investment's optimal time horizon is longer than an investor's endowed liabilities, the investor might be wiser to defer their liabilities than to pluck the investment early. Individuals can alter the timing of their liabilities in order to give themselves a time horizon that is suitable for their lending and investing opportunities. This commonsensical strategy is not well developed in the scholarly literature, nor is the law well-attuned to supporting it.

In fact, individuals alter their liability terms structure all the time. Someone who knows that their lifetime income will be paid out mostly in the later years of their life might try to align their liabilities to that asset time horizon: they might take out a longer mortgage and then frequently refinance to keep the leverage high.<sup>84</sup> This is frequently a much more logical strategy than trying to alter the asset side of their portfolio. When an individual's portfolio is mostly expected job income, asset-side alterations are risky and costly; they involve choices like changing careers to paths with higher early salaries (and lower terminal salaries). It is probably better to move the liability.

Borrowing or repaying debts is not the only way to alter our liability structure. All of us will need to spend money for health care, but a healthy diet and abstention from extreme sports can probabilistically move those liabilities later in time. Given the expense of severe health interventions, it makes sense to try to not only lower the expected liability but also to move it to a time when it can be managed. There may be a reason that people skydive *after* their company IPO rather than before. Apart from the feeling of celebration, a subtle reinforcing factor is that it is nice for the liability to come after the asset matures *and* that it was more logical to move the liability than to move the asset (say, by prematurely selling the company).

When liabilities cannot be moved through time, they can be moved from person to person. If there is some reason that a mountain must be climbed today, I can pay another to pursue the adventure and bear the risk. The division of labor also involves transfers of concrete and potential risks. Indeed, the whole insurance industry is a form of liability transfer: the best payers of an uncertain risk may be an institution or pool, so it is efficient to transfer the liability to a better bearer.

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84. This example is clearly *also* an example of liquidity transfer. All three types in this subsection are part of the broader category of portfolio alteration, and there is not always an analytically sharp distinction between liquidity, asset, and liability transfer; a change in assets can be a change in liquidity, just as assets are largely just negative liabilities.

### III. CONSIDERING RESPONSES AND SOURCES TOGETHER

This Part considers the normative appropriateness of the various responses to the potential sources of wrong-termism. It also describes the interaction among sources and solutions. One conclusion from this Part is that easy answers are not always available within the confines of the existing debate. What helps with one form of wrong-termism may exacerbate another, and that means that many solutions involve tradeoffs. While careful empirical work could help us to make these tradeoffs wisely, we would do well to consider less-used solutions, where low-hanging fruit may yet be found. In particular, almost no attention has been given to liability transfer as part of the solution to wrong-termism. While there are risks and challenges to encouraging liability transfer, improved liability transfer poses little chance of exacerbating wrong-termism, regardless of the source of the wrong-termism. It is therefore worthy of greater study.

#### *A. Interaction among Sources of Wrong-Termism*

The three sources (investor, assets, and market) interact because the influence of any one source may be amplified by the presence of the others. Investor-based wrong-termism, which concerns an investor's idiosyncratic desire to guide returns to a particular temporal point, is unlikely to be expressed in any great quantity if the asset and market sources are absent. The investor may need returns at a given moment in time, but she may not choose to impose those horizons on her investment company if she perceives that the market is willing to pay a great deal for the assets as they are currently being managed. Conversely, the investor may find validation in her wrong-termism if secondary markets signal that the wrong-termism is profitable. Likewise, an investor with short-term needs may be encouraged or cautioned if she forms asset-specific beliefs about whether short-term policies will improve or harm this particular investment.

Therefore, these sources are not only substitutes but also, at some margin, complements. Figure 1 depicts a stylized version of this relationship, showing the total wrong-termism. As the sources of wrong-termism rise, we can expect wrong-termism to rise, but probably not linearly.

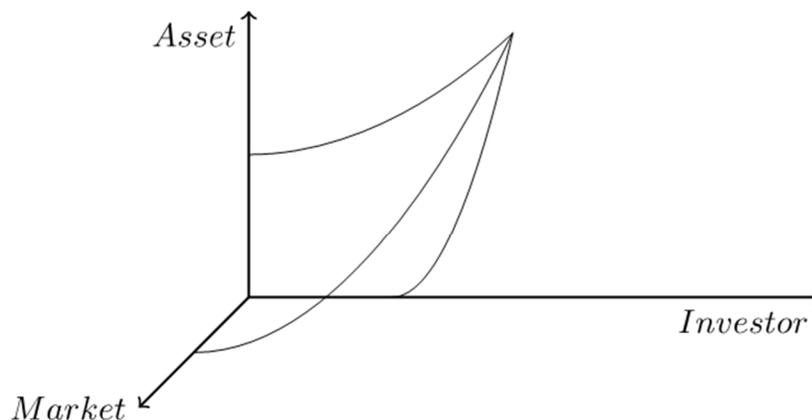


Figure 1: Total Wrong-Terming as a Function of Source

*B. Effects of Certain Responses to Certain Sources*

While the three sources of wrong-termism generally support one another, the same cannot be said of solutions. The various solutions to wrong-termism (e.g., shareholder power or portfolio adjustment) interact in more complex ways, and not each response is appropriate to every sort of wrong-termism.

Taken alone, the rationality of asset-based wrong-termism influences the appropriateness of shareholder empowerment. In many contexts, shareholder preferences may directly or indirectly urge wrong-termism actions. Where these investor-born impulses are irrational, investors might appreciate restraints on their own authority the way that Odysseus preferred being bound to the mast. He knew his own weaknesses and hoped for external scaffolding to improve his overall prospects. In these cases, it might be prudent if the law disempowered shareholders at the margin to prevent them from expressing these short-term impulses.

Likewise, there is an argument for restraining shareholder power when investors have incorrect views about the causal contribution of certain temporal orientations to total wealth maximization. That is, if investors wrongly think quarterly capitalism helps them, there may be a case for weakening manager accountability. Though shareholders may not know it, they will use their influence to call for acts that make them worse off.

Conversely, it is presumptively appropriate to empower shareholders when the source of short-termism is a rational concern for the investor's idiosyncratic needs. To make that claim more concrete, it might seem intuitive that if a shareholder genuinely needs full liquidity in one month, this counts as a reason to give her sufficient influence to ensure management will terminate projects incompatible with that time horizon. Likewise, when investors are correct that wrong-termism disciplines management, wrong-term pressures actually improve firm performance. Accordingly, legal and managerial efforts to frustrate shareholder power would not be justified even if linked to some conception of longer-term efficiency.

Yet investor rationality is not itself the dispositive determinant of appropriate investor power. First, an investor with limited ability to control a firm and limited ability to sell its shares may be frustrated, but someone else—future customers or other investors in the firm—will be pleased that the firm avoided wrong-termism. There is no a priori way to evaluate the magnitude of these effects. It may be that the harm investors experience by having unsolved and *genuine* time horizon problems is worth the gain of protecting firms from wrong-termism. Thus, when investors are deemed to be rational wrong-termists due to their inborn liability horizons, it may militate in favor of or against shareholder empowerment; the case is uncertain.

Second, empowering investors to influence management increases investors' willingness to lobby for their preferred time horizon rather than pursuing other strategies. Insofar as other strategies such as asset transfer might have salutary features, it could prove costly to emphasize management influence. “[U]sing Hirschman's . . . terminology, ‘exit’ is inconsistent with ‘voice.’”<sup>85</sup> The value of investor power must be determined in light of its interaction with other responses.

Berle and others urged improvements in market opportunities as a solution to wrong-termism because it lets wrong-term investors adjust their portfolio rather than influence the portfolio companies.<sup>86</sup> If credit markets are perfect, then wrong-termist investors can borrow or lend to meet their idiosyncratic needs. If asset markets are perfect, then wrong-termist investors can sell assets with the wrong horizon to other investors and buy instead the sorts of assets that are more temporally suitable. Often, this will indeed help with wrong-termism, particularly when the wrong-termism is investor-born.

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85. JEAN TIROLE, *THE THEORY OF CORPORATE FINANCE* 375 (2006). *See generally* ALBERT O. HIRSCHMAN, *EXIT, VOICE, AND LOYALTY* (1970).

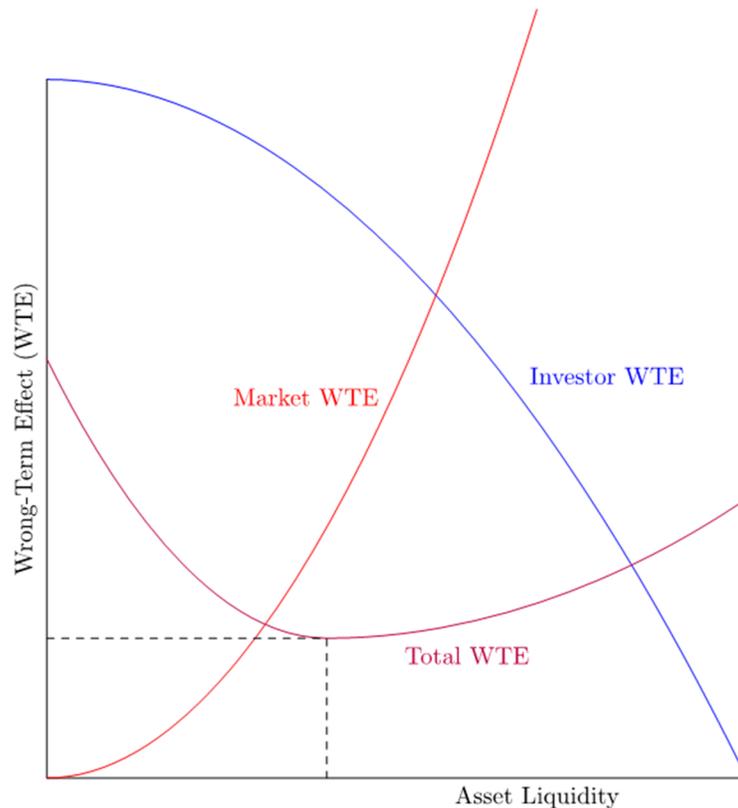
86. *See* Berle, *supra* note 81.

On the other hand, liberal asset and liquidity transfer allows irrational investors to more fully express their erroneous views. For example, with liberal credit markets, asset-born wrong-termism may lead investors to borrow great sums against their portfolio firms in order to impose debt-based discipline. If this is not a good way to improve performance of a given firm, this choice will be inefficient. Less liquid credit markets would place a friction on this conduct and help protect firms and investors from error. Likewise, liquid asset markets allow asset-based irrationally wrong-termist investors to buy up more assets in order to impose their tactical myopia.

And the same can be said of market-born wrong-termism. Investors who perceive widespread wrong-termist impulses in others may use ready credit and easy asset transfer to acquire myriad firms, demand wrong-termed policies, and then resell them to a receptive secondary market. Greater frictions would restrict the influence of any local wrong-termism.

Credit and asset transfer therefore affect wrong-termism in complex ways. Ready transfer eases the need for individual investors to autarkically impose wrong-termism upon their investments, but it also lowers the cost of those investors (or market-driven investors in their stead) acquiring more assets for the purpose of imposing an idiosyncratic time horizon.

For example, we could imagine that the move from “credit and asset transfer unavailable” to “transfer available” results in substantial numbers of investors opting for transfer and relieves wrong-termist pressure on management. And we could likewise imagine that further reductions in transfer cost matter much only to sophisticated actors who frequently buy companies with an eye to imposing wrong-term policies and then reselling them. Low costs might matter more to such investors because they expect to bear that transfer cost twice as often (buying and selling). If this picture is accurate, then liberal asset transfer is not an unalloyed good. Instead, it has an optimal level, above which it increases market-born wrong-termism and below which it tolerates investor-born wrong-termism. The Figure below depicts such a relationship.



Market-based short-termism leads some investors to seek short-term objectives in order to increase perceived appeal to potential myopic third parties. Increasing shareholder power will help these controlling investors achieve that goal because it will allow a smaller number of activist investors to more easily alter the time horizon of companies before resale. This could be inefficient if it is based on inaccurate views about the desires of other investors, or if it is based on accurate views about the inefficient desires of other investors. In such cases, improving shareholder power will help them drive the company to worse results. Indeed, shareholder empowerment can be even worse when the source of short-termism is market-based or derivative, at least in the context of reasonably liquid markets because it will allow a relatively small number of activist investors to seek out and influence a large number of susceptible companies.

One lesson from this Section is that many responses are not categorically effective. What helps control one source of wrong-termism may aggravate another. Either way, the interactions are complex and

difficult to categorically determine. They may also be dynamic: as asset liquidity increases, those best able to use it may enter the market and invest in complementary technology (e.g., services for monitoring companies suitable for purchase and intervention), and others may resist it (e.g., novel anti-takeover devices). There is probably not a single answer that holds over time.

This suggests the importance of expanding the universe of options in search of less costly responses. Careful readers will notice that we have not yet discussed liability transfer. Section C goes on to show how liability transfer may be an unexplored area for improvement.

### *C. Improving Liability Transfer*

We are familiar with the flexibility of liabilities in our everyday lives, but the potential for liability management as part of the response to wrong-termism may elude us, in part because of the law's role in creating many of the most important liability horizon structures. Recall that pension funds must invest to meet the liabilities of their beneficiaries, creating a set of pension-level obligations that are almost always assumed to be fixed.<sup>87</sup>

There are plenty of ways that pension funds can respond to their given liability time horizon. They can exercise control rights to force managers to cater to their interest. They can borrow to fill funding gaps. They can sell long-lived investments to more patient investors as their liabilities come due. They can even buy financial derivatives that purport to pay them whatever they need. But all of these solutions leave risk for the fund. In the end, the pensioners are *the fund's* liability and any non-payment create serious risks *to the fund and its managers*.

Rather than paying someone to help them *manage* their liability, pension sponsors might pay someone else to *assume* that liability. Then the pension sponsors could rest easy and feel no incentive toward wrong-termism. This might be attractive if another firm is better at managing liabilities than the pension sponsor. More interestingly, a firm with offsetting wrong-termism could obtain an overall right-termist position by taking on these liabilities, just as a firm with assets suitable to a particular time horizon might find it convenient to match the liabilities. Finally, a pension fund is subject to a 50% excise tax on overfunding.<sup>88</sup> Assuming we wish to keep this tax, pension funds will always be at a disadvantage

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87. See, e.g., Roy P.M.M. Hoevenaars et al., *Strategic Asset Allocation With Liabilities: Beyond Stocks and Bonds*, 32 J. ECON. DYNAMICS & CONTROL 2939, 2940 (2007) ("In making their strategic portfolio decisions, pension funds are restricted by their liabilities. . . . Liabilities are a predetermined component in the institutional investor's portfolio.").

88. See discussion *supra* Part I.A.3.

when it comes to efficiently investing to meet their liabilities; far better to shift the obligation to someone not subject to that tax.

The general term used for managing pension portfolios to address time horizons is “pension de-risking.”<sup>89</sup> However, that term is too broad. It includes both asset transfer solutions and liability transfer solutions. Although we are more interested in the liability side, let us first consider the asset side. The asset transfer approach is often called an “internal” strategy.

A very simple internal de-risking strategy of this type would be for a plan to simply purchase and hold annuities that paid out to the plan as the plan’s liabilities to pensioners came due. Other strategies attempt to reduce the volatility of the plan’s investments, such as purchasing high-grade bonds or hedging against undesirable market fluctuations.<sup>90</sup>

These “internal” strategies are relatively uncontroversial as a normative matter,<sup>91</sup> though it bears noting that their legality was controversial until fairly recently.<sup>92</sup>

More controversial are “external” strategies, which actually transfer the pension liabilities to a third-party payer.<sup>93</sup> For example, General Motors paid Prudential to take over its defined benefit liabilities; Prudential took an enormous basket of securities as compensation—enough to theoretically cover the liabilities, plus 7% as compensation for

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89. Paul M. Secunda & Brendan S. Maher, *Pension De-Risking*, 93 WASH. U. L. REV. 733, 735–36 (2016). The myriad approaches for tailoring assets to match liabilities is sometimes called the Asset-Liability Management literature.

90. *Id.* at 740.

91. *Id.* at 739 (“[Such policies are] less worrisome because they do not transfer any risk to beneficiaries and are entirely governed by ERISA . . .”).

92. It was only in 2006 that the Department of Labor clarified that it “does not believe that there is anything in the statute or the regulations that would limit a plan fiduciary’s ability to take into account the risks associated with benefit liabilities or how those risks relate to the portfolio management in designing an investment strategy.” U.S. Dep’t of Labor, Opinion Letter on Application of the Fiduciary Responsibility Provisions of Title I of the Employee Retirement Income Security Act of 1974, 3 (Oct. 3, 2006). That is to say that the Department of Labor blessed some amount of liability-driven investment as compatible with the various ERISA constraints on plan providers. *See, e.g.*, ERISA of 1974 § 403(c); 29 U.S.C. §§ 1103(c) (2012), 404(a)(1)(A), 1104(a)(1)(A) (requiring plan fiduciaries to discharge duties solely in the interest of plan participants); *id.* §§ 404(a)(1)(B), 1104(a)(1)(B) (2012) (requiring “care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims”). There had been some concern that consideration of time horizons might not be among those various requirements.

93. Secunda & Maher, *supra* note 89, at 740.

bearing the risk and managing the program.<sup>94</sup> These are real liability transfers—the accepting firm is the only one on the hook for the pension liabilities going forward. And these transfers have become a major phenomenon in recent years. “In the last few years, for example, Verizon, General Motors, Ford, Motorola, and Bristol-Myers Squibb have all undertaken pension de-risking transactions. Together, these transactions were worth over \$100 billion and affected hundreds of thousands of workers, retirees, and their beneficiaries.”<sup>95</sup>

As big as pension de-risking has become, it may be at a crossroads. It is fair to say that external pension de-risking has a bad name among ERISA scholars. Secunda and Maher refer to “pension de-risking” as “troubling.”<sup>96</sup> They are worried that pension de-risking removes protective regulation and government-overseen insurance from pensioners, potentially leaving them in the lurch, and they see de-risking as just one aspect of a corporate and government agenda that is hostile to defined benefit plans.<sup>97</sup> They would accordingly curtail external de-risking programs to a great degree.

While Professors Secunda and Maher are certainly right about the potentials for abuse, they give short shrift to the potential benefits of pension de-risking. They do not consider the possibility that the best bearer of plan risk may not be the employer corporation, that the optimal bearer may change through time, and that there may be social costs from forcing the wrong party to bear this risk. The social cost is, among other things, the wrong-term influence that the bearer may exert on management.<sup>98</sup> There are myriad other ways that the law currently encourages wrong-terming by ossifying fixed liability structures, and it is worth asking whether there could be a more liberal market for liability transfers without creating undue problems.

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94. Leslie Scism, *Your Pension Check May Soon Be Coming from an Insurance Company*, WALL ST. J. (Mar. 12, 2017), <https://www.wsj.com/articles/that-pension-you-earned-may-soon-be-coming-from-someone-else-1489342032>.

95. Secunda & Maher, *supra* note 89, at 736.

96. *Id.* at 733.

97. *Id.* at 738 (“[T]he underlying motivation is the same. An employer made a [defined benefit] promise long ago. Afterward, it determines that its current strategy for keeping the pension promise is too costly or too afflicted with uncertainty.”).

98. It is not enough to retort that employers unable to bear the risk of a defined benefit plan ought not to create them, and to imply that those who seek to avoid existing liabilities must be engaging in a bait and switch—promise one thing and try not to deliver. The company may have had a fine ability to satisfy this policy at one point but faces different horizon constraints as time goes on, which raise the cost of supporting the plan.

Fund de-risking is an interesting example of liability transfer, and it raises a number of general concerns about what it would take to have a robust liability transfer market.

First, creditors of the liability transferring party could lose out if their liabilities are transferred without their consent to lower quality payers. This is a general problem of opportunism through novation. But if a creditor's consent is requested, the creditor could engage in holdup. In some ways, we are watching the tension between these two points of view in the pension de-risking literature.<sup>99</sup>

Second, and more interestingly, there are economic barriers to unilateral liability transfer. An investor selling assets oftentimes sells them into a highly liquid market in which they are a price taker. However, we do not currently observe robust markets for most liabilities.<sup>100</sup> There are not rich secondary markets into which individuals offset their commitments to third parties. This is in part because of the holdup problem above; how can you create sensible secondary markets if creditors must be consulted on each novation?

There are other problems with liquid liability markets. Stock exchanges have thrived more frequently than bond exchanges because most companies issue only one large class of permanent stock, but companies issue myriad bonds with varying durations, making a fungible and permanent market difficult. A similar problem would plague those who alienate liabilities. Unless only a few parties stood as creditors in myriad liabilities, then each set of liabilities transferred would be *sui generis*. By accepting my liability transfer, you pick up duties to *my* beneficiaries, who are not creditors on any other transferor's liabilities. No meaningful market could develop for any but the largest liability transfers.<sup>101</sup>

Any seller of an instrument who knows the instrument better than the buyer will face an adverse selection discount. If a corporation seeks to offset its expected \$100 million pension obligation for \$105 million, the potential assumer of the obligation may conclude that the ceding party has gotten an early peek that their obligations may be running higher than expected. At a minimum, they would not be selling at \$105 million if they had learned that their obligations were running *cheaper* than expected.

And this dynamic iterates. Knowing that liability-assumers will distrust anyone who seeks to alienate a liability and accordingly demand

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99. See generally Kenneth Ayotte & Henry Hansmann, *Legal Entities as Transferable Bundles of Contracts*, 111 MICH. L. REV. 715 (2013) (describing this double holdup problem).

100. The exception is the market for liabilities of entities whose principal role is product liabilities (e.g., banks).

101. The suggestion below that liabilities be securitized would help with this problem, of course.

an outsized premium, the only folks who will come to market with their liabilities are those who know their liabilities are sufficiently bad as to keep up with a steep premium. And that inauspicious fact will further drive up the premium. It is pretty easy to imagine such a market collapsing.

The same thing can happen with the market for assets; issuers of securities face thin markets at first<sup>102</sup> and may pay a discount for adverse selection when they issue equity.<sup>103</sup> However, we have solved this problem in some ways. A variety of laws and institutions help construct a deep market for assets first offered.<sup>104</sup> And adverse selection for individual securities can be solved in part by trading diversified baskets of securities.<sup>105</sup>

Could we use similar solutions to help ease liability transfer? One could imagine creating diversified portfolios of de-risked assets, so that one could not infer inside knowledge about any one pension from an individual buyer or seller's order. If hundreds of companies engage in de-risking, their obligations could be combined into an instrument with diversified exposure. For example, a special purpose entity (SPE) could be ceded with securities sufficient to cover the expected cost of the pension liabilities. In turn, the SPE could be owned by a guaranteeing Master SPE (MSPE), which is ceded with cash and bonds sufficient to pay the SPE obligations under even bad scenarios. Interests in the MSPE could be sold to the public with the notion that the MSPE surplus is their property—and is expected to be significant.

To be clear, the purpose of this instrument is not to assure everyone that the investment will be safe. Diversification may alleviate risk, but the companies issuing liabilities may be sufficiently bad that the risks remain real; they may be correlated risks, or at least varying alongside ordinary macroeconomic events; and the overall risk will really depend on the amount of securities shoring up the basket. Rather, the crucial point is that by bundling them, the secondary market can breathe relief at the risk of adverse selection. Someone shorting the basket would have to know important private information about several obligations. Since that is unlikely, liability securitization could help protect this market.

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102. Robert B. Thompson & Donald C. Langevoort, *Redrawing the Public-Private Boundaries in Entrepreneurial Capital Raising*, 98 CORNELL L. REV. 1573, 1624–27 (2013).

103. Stewart C. Myers & Nicholas S. Majluf, *Corporate Financing and Investment Decisions When Firms Have Information Investors Do Not Have*, 13 J. FIN. ECON. 187, 219–20 (1984) (describing “pecking order theory[,]” in which firms prefer to issue debt to avoid the adverse selection problems of issuing equity).

104. See generally Thompson & Langevoort, *supra* note 102.

105. See generally Gorton & Pennacchi, *supra* note 31 (arguing that index-linked securities allow non-informed investors to avoid adverse selection discount from their trades).

Modest support for liability transfer would mean that the Department of Labor and Congress would continue to liberalize rules on de-risking. More ambitious programs would involve government support of a market to overcome the various problems outlined above. We could imagine a Fannie and Freddie for pension transfers or other liabilities. A government agency or entity could facilitate the construction of liability bundles—perhaps exercising the federal government’s special relationship to the municipalities and states that make up so much of the debtor pool. Liability transfer is an unfamiliar concept, but it presents great potential—both for portfolio optimization generally and with respect to the wrong-termism debate.

#### CONCLUSION

Investor time horizons are a perennial source of controversy: Do idiosyncratic horizons exist? Do they affect firm behavior? Are such effects for the best or worthy of intervention?

This Article has attempted to assist that debate with conceptual clarification: a new term, wrong-termism; a sense of the sources and solutions available, as well as their interaction; and an invitation to give greater attention to one largely ignored channel for horizon-proofing, liability transfer. With luck, incremental, conceptual, empirical, and normative projects can improve the state of American capitalism and the debates surrounding it.