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Should Mutual Funds Invest in Startups? A Case Study of Fidelity Magellan Fund's Investments in Unicorns (and Other Startups) and the Regulatory Implications

Jeff Schwartz
S.J. Quinney College of Law, University of Utah

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SHOULD MUTUAL FUNDS INVEST IN STARTUPS? A CASE STUDY OF FIDELITY MAGELLAN FUND'S INVESTMENTS IN UNICORNS (AND OTHER STARTUPS) AND THE REGULATORY IMPLICATIONS

Jeff Schwartz*

Mutual funds are acting like venture capitalists. Contrary to longstanding practice and to their reputation for investing in public companies, mutual funds, including some of the most prominent, are allocating portions of their portfolios to private startup firms, including famous unicorns like Airbnb and Uber. Through a case study of Fidelity Magellan Fund's startup portfolio, this article analyzes the regulatory implications of this development. I argue that the new interest in venture investing poses several potential investor-protection concerns: lack of awareness among mutual-fund investors, lack of liquidity for mutual-fund shares, lack of venture-capital ("VC") expertise among mutual-fund management, and lack of accountability over how fund's value their ownership stakes in startups for purposes of calculating their net asset values, which creates an opportunity for management to manipulate such estimates.

Based on Magellan's practices, liquidity is not a salient concern, but the other gaps appear significant. Magellan's disclosures on its website, and in its prospectus, statement of additional information, and quarterly reports provide investors with little meaningful information about the fund's investments in startups. They also provide nothing to suggest that Magellan has experience in this area. At the same time, however, the fund reports returns from its startup portfolio that far exceed the public market and the VC-industry average. While exceptional performance from a novice does not prove misconduct, it reinforces concerns about the dependability of fund valuations.

To address the above risks, I suggest new rules governing how mutual funds value their startup investments, which tie changes to objective evidence, and new disclosure requirements that would shed light on the rationale for valuation changes and provide mutual-fund investors with notice that startups are in their portfolios and that these investments pose certain risks.

* William H. Leary Professor of Law, University of Utah, S.J. Quinney College of Law. I would like to thank the organizors of the *North Carolina Law Review's* symposium on *The Role of Law in Promoting Entrepreneurship* for hosting an engaging discussion, as well as John Coyle, Colleen Honigsberg, Cathy Hwang, Joe Green, the law review editors, and the participants in the symposium for their valuable comments on this article.

TABLE OF CONTENTS

I. INTRODUCTION

Much has been made of the proliferation of "unicorns," startups with valuations of at least $1 billion.[1] The neologism, coined at a time when such firms were rare,[2] now comes with an ironic twist, as these firms now seem to be everywhere.[3] One trend that has fueled their rise, but attracted far less attention than the unicorns themselves, is that mutual funds—the somewhat stodgy savings tool for retail investors with an eye towards retirement—have begun to act like venture-capital ("VC") funds—the flashy portfolio ornament for wealthy individuals and institutional investors. Mutual funds were once content to invest almost exclusively in publicly traded securities,[4] but have recently begun allocating portions of their portfolios to these young private firms.[5]

This Article analyzes the regulatory implications that arise from mutual funds amassing VC portfolios. I argue that their investments in startups pose several potential concerns. One is investor awareness. Since venture investing runs counter to historical practices, mutual-fund investors might not realize that their funds are purchasing these atypical assets. Another concern

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[1] Andrew Ross Sorkin, *Main Street Portfolios Are Investing in Unicorns*, N.Y. TIMES DEALBOOK (May 11, 2015), http://www.nytimes.com/2015/05/12/business/dealbook/main-street-portfolios-are-investing-in-unicorns.html.
[2] *See* Aileen Lee, *Welcome to the Unicorn Club: Learning from Billion-Dollar Startups*, TECHCRUNCH (Nov. 2, 2013), https://techcrunch.com/2013/11/02/welcome-to-the-unicorn-club/ (coining the term).
[3] *See The Billion Dollar Startup Club,* WALL ST. J., http://graphics.wsj.com/billion-dollar-club/ (last visited, Sept. 30, 2016); Ben Zimmer, *How Unicorns Became Silicon Valley Companies*, March 20, 2015, *available at* http://www.wsj.com/articles/how-unicorns-became-silicon-valley-companies-1426861606.
[4] *See* Janet Kiholm Smith et al., *The SEC's "Fair Value" Standard for Mutual Fund Investment in Restricted Shares and Other Illiquid Securities* 6 FORDHAM J. CORP. & FIN. L. 421, 421 (2001).
[5] *See* Tim McLaughlin & Heather Somerville, *U.S. Mutual Funds Boost Own Performance with Unicorn Mark-Ups*, REUTERS, Aug. 11, 2016, *available at* http://www.reuters.com/article/us-funds-valuations-idUSKCN10M0CP.

is liquidity. Investors expect to be able to redeem mutual-fund shares nearly instantly. Since startups are private, however, their shares do not trade on a liquid market, which makes it more difficult for mutual funds to meet their shareholders' redemption expectations.

Finally, these investments raise concerns about competence and candor. Mutual fund portfolio managers are not typically experts in venture-capital valuation, which casts their investing decisions in this arena into doubt. Moreover, once they have made these investments, funds are required to value them each day.[6] With no market price to go on, these estimates are in management's discretion. These estimated values impact the price that shareholders receive when they cash out and what newcomers pay when they invest.[7] The lack of expertise in valuing venture-capital investments may translate to flawed estimates.

Fund discretion in valuation also creates the potential for misconduct. Funds are incentivized to choose high values, which among other benefits to the fund, makes them appear more successful than their peers and increases the fees collected from investors.[8] They might also be tempted to smooth returns, that is, report losses and gains when most advantageous for the fund rather than when they occur.[9]

This range of concerns should sound familiar to the Securities and Exchange Commission (the "SEC"). While the VC-investing trend is a new phenomenon, mutual funds have long

[6] *See* 17 C.F.R. § 270.22c-1(b)(1) (2016).
[7] *See infra* Part III.C.1.
[8] *See infra* Part III.C.3. While this concern has drawn little attention, funds have made headlines for marking down the values of their startups. *See, e.g.,* Rolfe Winkler, *Fidelity Marks Down Startups Including Dropbox, Zenefits*, WALL ST. J., March 30, 2016, *available at* http://www.wsj.com/articles/fidelity-marks-down-startups-including-dropbox-zenefits-1459346847; Rolfe Winkler, *T. Rowe Price Marks Down Most of Its Tech Startups*, WALL ST. J., April 16, 2016, *available at* http://www.wsj.com/articles/t-rowe-price-marks-down-most-of-its-tech-startups-1460759094.
[9] For a discussion of smoothing, see AHMED RIAHI-BELKAOUI, ACCOUNTING THEORY 56 (5th ed. 2004).

invested in other illiquid assets, such as mature private firms[10] and thinly traded debt instruments,[11] which expose investors to risks similar to those noted above.[12] That being the case, the securities laws contain rules that are at least partially responsive. The pertinent issues are, therefore, whether the existing, generally applicable, regulatory regime is sufficiently robust to handle VC investing or whether, and if so what, specially tailored rules might be advisable. I argue that entry into this new arena presents novel types and degrees of risk and, because of this, suggest targeted reforms that would mitigate the investor-protection concerns that result.

To assess the extent to which risks to investors remain despite existing safeguards, I describe the relevant rules, present a case study of Fidelity Magellan Fund's compliance therewith, and scrutinize the fund's VC valuations. Magellan is an iconic mutual fund. It is actively managed, which means its portfolio managers select securities with the hopes of beating the stock market's return rather duplicating it like an index fund, and it has about $15 billion in assets and 163 million shares outstanding,[13] making it one of the largest and most popular actively managed equity mutual funds.[14] Most significantly, the fund is also an active investor in unicorns and, as it turns out, other startups.[15]

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[10] *See* Restricted Securities, Accounting Series Release No. 113, Investment Company Act Release No. 5847, 35 Fed. Reg. 19,989, 19,989 (Dec. 31, 1970).
[11] *See generally* Money Market Fund Reform; Amendments to Form PF, Securities Act Release No. 9616, 79 Fed. Reg. 47,736 (Aug. 4, 2014).
[12] Mutual-fund liquidity has arisen as a concern at the SEC of late as funds have increasingly diversified their holdings. *See infra* note 98.
[13] *See Fidelity Magellan Fund*, FIDELITY, https://fundresearch.fidelity.com/mutual-funds/summary/316184100 (last visited Sept. 8, 2016) (number of shares calculated by dividing portfolio net assets by the fund's net asset value).
[14] *See* William Baldwin, *Mutual Fund Ratings: The Biggest Domestic-Stock Funds*, FORBES (Jun. 26, 2015), http://www.forbes.com/sites/baldwin/2015/06/26/mutual-fund-ratings-the-biggest-domestic-stock-funds/#4d7d69dd276b.
[15] *See infra* table 1.

There are several reasons why Magellan is an attractive fund on which to focus. Because it is an industry leader with the resources to hire top counsel, its valuation processes and compliance activities are likely suggestive of larger industry practices, and, more specifically, because it is part of the Fidelity family of funds, its practices are likely suggestive of those at Fidelity, which, as a fund family, is a leader in startup investing.[16] In addition, even if Magellan is an outlier in its approach to these securities, to the extent its practices raise investor-protection concerns, its scale means that a significant number of individuals could be harmed. This alone would warrant regulatory scrutiny.

Based on the above three-step analysis of risk, regulation, and case-study data, I conclude that, while liquidity does not appear to be a concern, there is reason to suspect that investors fail to realize that their mutual funds are investing in unicorns (and potentially other startups), that mutual-fund investments in these securities are inadequately informed, and that the valuations that mutual funds report publicly and serve as the basis of redemptions and purchases may be inflated. The most significant findings are that Magellan's disclosures surrounding its startup investments and its valuation practices are opaque, and that its reported valuations indicate that the fund has done alarming well with this portion of its portfolio. Its reported returns far outpace its other investments, the venture-capital industry, and the public markets. Such success does not necessarily indicate misconduct—it may owe to luck or skill that belies the fund's inexperience. Greater oversight, however, would provide increased confidence that the outstanding performance owes to these benign explanations.

[16] *See* Sergey Chernenko et al., Mutual Funds as Venture Capitalists? Evidence from Unicorns 19 (Jan. 10, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2897254; Beth Healy, *Fidelity Funds High on Hot Startups*, BOSTON GLOBE, Jan 13, 2007, https://www.bostonglobe.com/business/2017/01/13/fidelity-funds-high-hot-startups/ZzJMQHiFbLjBMsd2MNSNxM/story.html.

While a study solely of Magellan's practices cannot prove reform is necessary, the findings and analysis herein lend credence to investor-protection concerns and, therefore, suggest that reforms are worth consideration. I argue that stricter rules regarding VC valuation methods and enhanced disclosures related to the venture portion of fund portfolios would go a long way toward protecting investors.[17]

To limit the discretion over valuations that funds enjoy today, I suggest that rules should mandate valuation changes when, and only when, based on publicly available information. Funds would also be required to publicly disclose the information on which such changes are based. To improve investor awareness, I propose rules that would mandate prominent disclosure of the presence of VC investments and the risks they pose. Disclosures of varying length and specificity would be necessary in certain advertisements and in several mandated filings, including the fund's prospectus (its primary sales document) and its statement of additional information (the "SAI") (a supplement to the prospectus with additional detail), the latter of which would contain a separate section devoted to this portion of the fund's portfolio. This combination of substantive restraints and additional transparency requirements would enhance the creditability of valuations and provide investors with adequate notice that their fund is involved in the VC arena.[18]

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[17] *See infra* Part IV.

[18] Because investors have historically shown muted interest in fund disclosures, mandating additional transparency would have only a qualified impact. *See* ABT SRBI, MANDATORY DISCLOSURE DOCUMENTS TELEPHONE SURVEY 56, 78 (2008), https://www.sec.gov/pdf/disclosuredocs.pdf (finding that almost two-thirds of investors rarely, very rarely, or never read mutual-fund prospectuses). Improved disclosures, however, would reach some investors, and provide constructive notice that legitimizes the new practice of investing in startups. Disclosure reform therefore serve as a worthwhile complement to the substantive portion of this article's proposal, which would protect everyone.

Part II of this Article describes the rise of unicorns and the corresponding rise of mutual-fund investments therein, the history of Fidelity's Magellan Fund, and the makeup of Magellan's VC portfolio. In Part III, I discuss the investor-protection concerns that mutual-fund investments in venture-stage firms give rise to and assess—through a juxtaposition of the current regulatory structure against Magellan's investing, valuation, and compliance practices—whether today's regulations are sufficient to protect investors. The analysis reveals gaps with respect to investor awareness and fund-valuation practices for emerging firms. Part IV proposes reforms that would mitigate these concerns.

II. Unicorns, Mutual Funds, and Magellan

A. The Proliferation of Unicorns

Unicorns have upended norms in entrepreneurial capital raising, and in so doing, have captured the attention of a growing number of mutual-fund managers. There are currently 154 unicorns,[19] with Dropbox, Airbnb, and Uber among the most famous. Indeed, all of these companies are valued at over $10 billion, which qualifies them for "decacorn" status.[20] Like these well-known firms, unicorns tend, by and large, to be Silicon-Valley-based technology companies.[21]

Conventionally, companies with such rich valuations would go public to allow founders, employees, and early stage investors to cash in on the firm's success. Unicorns, however, have

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[19] *See The Billion Dollar Startup Club, supra* note 3.
[20] *See id*; Sarah Frier & Eric Newcomer, *The Fuzzy, Insane Math That's Creating So Many Billion-Dollar Tech Companies*, BLOOMBERG TECH (Mar. 17, 2015), https://www.bloomberg.com/news/articles/2015-03-17/the-fuzzy-insane-math-that-s-creating-so-many-billion-dollar-tech-companies (noting use of the "decacorn" terminology).
[21] *See id.*

shunned this path.[22] Travis Kalanick, the controversial CEO of Uber, captured the prevailing sentiment when he said that he would take the company public "one day before [his] employees and significant others come to [his] office with pitchforks and torches."[23]

To remain private, these companies raise money under Rule 506(b) of the securities laws.[24] So long as they limit participation to "accredited investors" and comply with several other restrictions, the rule allows them to collect round after round of venture capital without having to register as a public company or provide investors with any specific disclosures.[25] The rules define accredited investors as individuals and institutions that meet certain financial thresholds. Individuals must have a net worth of at least $1 million (excluding their principal residence) or sustained income of $200,000 per year,[26] while institutions must have greater than $5 million in assets.[27]

Typical startup investors include "angels" and venture-capital funds.[28] Angels tend to be wealthy individuals who qualify as accredited investors.[29] Venture-capital funds range in size, but can have over a billion dollars in assets under management in their family of funds.[30] The

[22] *See* Jim Kerstetter, *Daily Report: When Employees Want to Cash Out Private Stock*, N.Y. TIMES (Aug. 12, 2016), http://www.nytimes.com/2016/08/13/technology/daily-report-when-employees-want-to-cash-out-private-stock.html ("It has become common wisdom among tech start-ups that an initial public offering of shares is something that should occur only after all other options have been exhausted.").
[23] Kevin Maney, *Silicon Valley is Hoarding Wealth by Skipping IPOs*, NEWSWEEK, June 27, 2016, *available at* http://www.newsweek.com/2016/07/08/silicon-valley-unicorns-ipo-474898.html. For a broader discussion on the decline in IPOs and potential explanations, see generally Jeff Schwartz, *The Twilight of Equity Liquidity*, 34 CARDOZO L. REV. 531 (2012).
[24] *See* 17 C.F.R. § 230.506(b) (2016).
[25] *See id.*
[26] *See* 17 C.F.R. § 230.501(a) (2016).
[27] *See id.*
[28] *See* Stephen G. Morrissette, *A Profile of Angel Investors*, 10 J. PRIVATE EQUITY 52, 52 (2007)
[29] *See id.* at 54.
[30] *See* Tanya Benedicto Klich, *VC 100: The Top Investors in Early-Stage Startups*, ENTREPRENEUR (Feb. 19, 2015), https://www.entrepreneur.com/article/242702.

investors in venture-capital funds, technically limited partners, are all accredited.[31] It is only recently that mutual funds have shown interest in putting their enormous resources behind emerging firms. Funds from the largest families, including Vanguard, Fidelity, and Blackrock, have lately begun steering investor assets toward unicorns.[32] Allocations have risen sharply over the last few years and now total over $10 billion spread across over 250 funds,[33] with Fidelity's funds leading the way.[34] And while nascent statistics focus on unicorn investments, other startups may be on fund ledgers as well. One surprise from this article's study of Fidelity's Magellan Fund is that it has reached beyond these giants of the startup world.

While angel and venture-capital investing is strictly confined to accredited investors, anyone can invest in the mutual funds run by these well-known fund families and their peers.[35] Mutual-fund investors are not wealthy individuals seeking out risky investments in young companies. They are retail investors, many of whom take part in mutual funds through their workplace 401(k) plan.[36] While angels and VC limited partners are likely to be sophisticated parties (or at the very least have an interest in and understanding of investing), mutual-fund investors likely give investing little thought. They may even fear and dislike investing, but participate in mutual funds anyway because they have no other option to save for retirement.[37]

[31] *See* Jeffrey Estes et al., *Venture Capital Investment in the United States: Market and Regulatory Overview*, PRACTICAL LAW GLOBAL GUIDE 2015/16 (2015), *available at* http://us.practicallaw.com/7-501-0057?source=relatedcontent.
[32] *Startup Stock Tracker*, WALL ST. J, http://graphics.wsj.com/tech-startup-stocks-to-watch/ (last visited, Sept. 20, 2016).
[33] *See* Chernenko et al., *supra* note 16, at 30 fig. 1.
[34] *Id.* at 19; Healy, *supra* note 16.
[35] *See* Jeff Schwartz, *Reconceptualizing Investment Management Regulation*, 16 GEO. MASON L. REV. 521, 521 (2009).
[36] *See* Jeff Schwartz, *Rethinking 401(k)*s, 49 HARV. J. ON LEGIS. 53, 57 (2012).
[37] *See* Jeff Schwartz, *Fairness, Utility, and Market Risk*, 89 OR. L. REV. 175, 256 – 58 (2010).

They are the least sophisticated investors in the securities markets. If anyone needs protection in the VC space, it is them.

B. Fidelity's Magellan Fund

Magellan concentrates its investing in the publicly traded equities of large U.S. companies, but has a pronounced newfound interest in startups.[38] Founded in 1963, Magellan grew from $18 *million* in assets under management in 1977 to $19 *billion* in 1990 under the acclaimed investor, Peter Lynch, who averaged a 29.2% annual return.[39] Even after Lynch's tenure, the fund continued to prosper. In 2000, it was worth $110 billion.[40]

More recently, however, Magellan has struggled. Over the last ten years, it has trailed the S&P 500 index, as well as peer funds.[41] As a result, it has suffered massive shareholder redemptions and currently has assets under management of $14 billion, a large figure to be sure but one well beneath its peak. While Magellan is still one of the largest equity mutual funds, its rivals have gained at its expense.[42]

The fund is also likely a victim of broader headwinds facing actively managed mutual funds. Empirical evidence has shown that investing in such funds is a poor choice. They routinely yield subpar returns and charge high fees, leaving investors worse off than if they had put their money in passively managed index funds.[43] While the futility of active management

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[38] *See Fidelity Magellan Fund*, *supra* note 13.
[39] Matthew Schifrin, *Peter Lynch: 10-Bagger Tales*, FORBES (Feb. 23, 2009), http://www.forbes.com/2009/02/23/lynch-fidelity-magellan-personal-finance_peter_lynch.html.
[40] Eleanor Laise, *Can Anyone Steer This Ship*, WALL ST. J., April 23, 2011, *available at* http://www.wsj.com/articles/SB10001424052748704547604576263183921903172.
[41] *See Fidelity Magellan Fund*, *supra* note 13.
[42] *See* William Baldwin, *supra* note 14 (including a table showing Magellan's recent size ranking among top equity funds).
[43] *See* Laise, *supra* note 40.

has been known for some time, the knowledge has only recently had a major impact on investor decision-making. Index funds are now seizing sizable chunks of market share.[44] In fact, the threat index funds pose may partially explain the startup-investing trend. Since there is no venture-capital index for passively managed funds to track, they cannot follow actively managed funds down this untrodden path.

The table below shows Magellan's venture investments. It has invested a total of about $134 million since the second quarter of 2012 (when its interest in startups appears to have begun).[45] It held 17 unique investments in 12 companies during the period under review—the 16 quarters beginning June 2012 and ending March 2016. While 7 out of Magellan's 12 venture investments are in unicorns, the table shows that Magellan has been willing to invest in smaller startups as well. In addition, two of the firms—Meituan and Mobileye—are international companies (China- and Israel-based, respectively). Some of the firms listed below have gone public, but they were all private at the time of Magellan's acquisition.

Table 1

Fidelity Magellan Fund Startup Investments

Company	**Acquisition Date**	**Acquisition Price Per Share ($)**	**Investment Amount ($)**	**Security Purchased**
bluebird bio, Inc.^	July 23, 2012	.50	1,711,000	Preferred Series D
Cloudflare, Inc.†	November 5, 2014	6.13	3,502,000	Preferred Series D
DocuSign, Inc.†	October 21, 2013	5.56	90,000	Common Stock
	March 3, 2014	13.18	99,000	Preferred Series B

[44] *See id*; Jason Zweig, *Are Index Funds Eating the World?* WALL ST. J. MONEYBEAT (Aug 26, 2016 11:46 am ET), http://blogs.wsj.com/moneybeat/2016/08/26/are-index-funds-eating-the-world/.

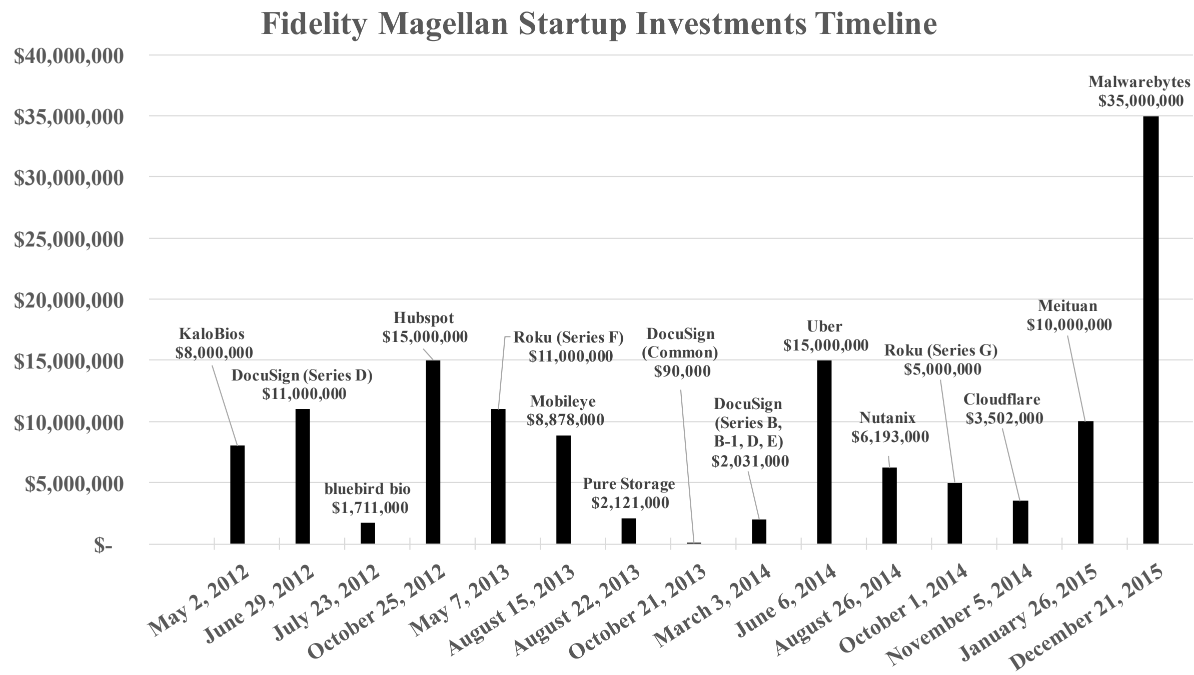
[45] I reviewed quarterly filings going back to the fourth quarter of 2009. No startup investments appeared prior to the June 2012 filing.

	March 3, 2014	13.34	30,000	Preferred Series B-1
	June 29, 2012	4.64	11,000,000	Preferred Series D
	March 3, 2014	13.17	71,000	
	March 3, 2014	13.13	1,831,000	Preferred Series E
Hubspot, Inc.ˆ	October 25, 2012	5.62	15,000,000	Preferred Series E
KaloBios Pharmaceuticals, Inc.ˆ	May 2, 2012	3.40	8,000,000	Preferred Series E
Malwarebytes Inc.	December 21, 2015	10.37	35,000,000	Preferred Series B
Meituan Corp.†	January 26, 2015	6.32	10,000,000	Preferred Series D
Mobileye N.V.ˆ†	August 15, 2013	34.90	8,878,000	Preferred Series F
Nutanix, Inc.†	August 26, 2014	13.40	6,193,000	Preferred Series E
Pure Storage Inc.ˆ†	August 22, 2013	6.93	2,121,000	Preferred Series E
Roku, Inc.	May 7, 2013	.91	11,000,000	Preferred Series F
	October 1, 2014	1.30	5,000,000	Preferred Series G
Uber Technologies Inc.†	June 6, 2014	62.05	15,000,000	Preferred Series D

ˆ Indicates that the company has gone public.
† Indicates the the company is a "unicorn."

The following timeline provides a sense of the scale and timing of these investments. Since its first investment in May 2012, the fund has consistently backed several startups a year. It had never invested more than $15 million until more than tripling that amount in its latest $35 million bet on Malwarebytes.

Figure 1



The above provides an overview of Magellan and its investment practices without getting into valuation and returns data for the fund's startup portfolio. This information is presented as part of the investor-protection analysis below, in Part III.C.6., which assesses the performance of the fund's VC investments and weighs the soundness of its valuations.

III. Investor-Protection Analysis

Mutual funds' recent interest in startups raises concerns about investor awareness and fund liquidity and about the competency and motivations of mutual-fund managers. While current mutual-fund regulations partially address these concerns, an analysis of Magellan's holdings, disclosures, and venture-firm valuations suggests that the current rules provide insufficient protection.

A. Investor-Awareness Concerns

Mutual-fund investors may not realize that their funds are investing in startups. Ordinarily, investors might be relatively unconcerned about the exact portfolio holdings of their funds. After all, a major attraction of mutual funds is that investing decisions are delegated to fund management. Venture investments, however, raise special concerns.

Although investors delegate stock picking to the fund manager, law and policy dictate that the investors' reasonable expectations for the contents of their portfolios set the boundaries of that authority. Since mutual funds are known for investing in public securities, their stakes in startups, which are private, are likely contrary to such expectations. The only way to insure that such investments align with reasonable expectations is for funds to give meaningful notice to their investors. The concern is whether they are providing it.

While the securities laws make no explicit appeal to "reasonable expectations," the principle has purchase in this context because of the contractual and fiduciary roots of the relationship between the mutual-fund managers and the investors. The representations that management makes about its fund can be viewed as outlining the terms of a contract between the fund and its investors, who accept when they purchase their shares,[46] and the principle that reasonable expectations form contractual boundaries is a central tenet of contact law.[47] For example, when parties act in ways that are counter to the reasonable expectations of their

[46] For a discussion of the contractual nature of the mutual-fund relationship, see Wallace Wen Yeu Wang, *Corporate Versus Contractual Mutual Funds: An Evaluation of Structure and Governance*, 69 WASH. L. REV. 927, 939-42 (1994). Lawsuits where management is alleged to have violated the terms of the relationship, however, are typically brought under the securities laws. *See* Richard L. Levine et al., *Mutual Fund Market Timing,* 52 FED. LAW. 28, 32-33 (2005) (discussing legal theories underlying claims that funds failed to follow announced policies regarding market timing).
[47] *See generally* Jay M. Feinman, *Good Faith and Reasonable Expectations*, 67 ARK. L. REV. 525 (2014).

counterparties, they violate the duty of good faith.[48] Similarly, counterparties are only bound to boilerplate terms if they comport with reasonable expectations.[49] By extension, mutual-fund investments are only appropriate if they match the reasonable expectations of the fund's investors. Given their history, investments in public companies like Home Depot and Apple would fall within investor expectations, while VC investments in private companies would likely fall outside them. Meaningful disclosure—the effect of which would be to expand such expectations—is the only cure.

Part of why such investments would otherwise fall outside investor expectations—and why this is worrisome—is the unique risks that startups, including unicorns, pose. Since startups are valued internally, these investments present risks regarding the accuracy of their valuations that are foreign to a portfolio consisting of the equity of publicly traded firms, where valuation simply equates to market prices. The risks startups pose in this regard are even more acute than the valuation concerns common to all fund investments in illiquid securities. Because startup valuation is particularly subjective, there is more room for error and bias. These unique risks make meaningful notice especially important. For notice to be *meaningful*, funds must provide more than just a note that startups are present; unless investors are also informed of the associated risks, they cannot plausibly be viewed as informed.

Fiduciary law buttresses the conclusion that proper notice is required. Because of the trust investors bestow in them, mutual-fund managers are fiduciaries of the funds they manage and, by extension, their shareholders.[50] Fiduciaries may not violate the reasonable expectations

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[48] *See id.* at 557.
[49] *See* RESTATEMENT (SECOND) OF CONTRACTS § 211 cmt. (e) (1981).
[50] *See* SEC. & EXCH. COMM'N, STUDY ON INVESTMENT ADVISERS AND BROKER-DEALERS 21-22 (2011); Donald C. Langevoort, *Private Litigation to Enforce Fiduciary Duties in Mutual Funds: Derivative Suits, Disinterested Directors and the Ideology of Investor Sovereignty,* 83 WASH. U.

of those whom they serve[51] and full disclosure is required if candor is called into question.[52] These longstanding fiduciary doctrines suggest that—since investments in startups would come as a surprise, and since the valuation of such investments raises concerns about management integrity—mutual-fund managers should provide full and fair disclosure.

While the precise contours of their fund's portfolio may not be generally of interest to fund investors, startups are different. Core common law principles dictate that when managers choose to invest in this unique and heretofore largely unprecedented asset class that poses unusual challenges, they provide investors with clear notice of the practice and the concomitant risks.

1. The Relevant Securities Laws and Magellan's Compliance Therewith

The securities laws, primarily the Investment Company Act[53] and the regulations thereunder,[54] contain a number of rules designed to provide investors with information about fund holdings and to prevent misrepresentations with respect thereto. Rules about quarterly reports, prospectuses, fund advertisements, and fund naming conventions are all relevant. A survey of Magellan's efforts to comply with these regulations gives insight into whether the requirements are effective. While the fund provides information about startup investments in response to such rules, it does not do so in a way that would be helpful to most fund investors.

L.Q. 1017, 1021 (2005); *See also* 15 U.S.C. § 80a–35 (2016) (discussing causes of action for breach of fiduciary duty). Since the duty is technically owed to the fund, private causes of action are derivative in nature. *See id.* at 1026; Anita K. Krug, *Investment Company as Instrument: The Limitations of the Corporate Governance Regulatory Paradigm*, 86 S. CAL. L. REV. 263, 293-99 (2012-13).

[51] *See* RESTATEMENT (SECOND) OF AGENCY §§ 383, 385 (1958).

[52] *See id.* at § 390 cmt. (a); Langevoort, *supra* note 50, at 1021.

[53] 15 U.S.C. § 80a-1 to a-64 (2016).

[54] 17 C.F.R. § 270.01 to 60a-1 (2016).

Since Magellan's disclosures appear compliant, the lack of meaningful information looks to be the result of a regulatory gap.

i. Quarterly Reporting Obligations

Mutual funds are required to file quarterly reports,[55] and these forms must contain a listing of their investments.[56] A knowledgeable investor could pull the filings from the SEC's website and see, at least as of quarter end, what firms were present. Investors might recognize the unicorns; if not, an internet search of unfamiliar names would reveal their presence. As required, Magellan lists its holdings, including unicorns and other startups, in these reports.[57]

Despite their inclusion, only sophisticated investors would be able to pick out the investments in young firms and understand the risks they entail. When Magellan and others invest in such companies, they typically purchase shares in a particular series of preferred stock. Since the rules require that funds include the nature of their holdings in their quarterly reports,[58] Magellan notes when it has purchased this type of security. While seeing that a fund holds shares in a series of a company's preferred stock is a giveaway to sophisticated investors that the issuer of such securities is probably a startup, retail investors would likely miss the signal.[59] Magellan never plainly states that these are VC investments.

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[55] *See* 17 C.F.R. § 270.30b1-5 (2016).

[56] *See* Form N-Q, Quarterly Schedule of Portfolio Holdings of Registered Management Investment Company, OMB No. 3235-0578, at Item 1, *available at* https://www.sec.gov/about/forms/formn-q.pdf; Form N-CSR, Certified Shareholder Report of Registered Management Investment Companies, OMB No. 3235-0570, at Item 6, *available at* http://www.sec.gov/about/forms/formn-csr.pdf.

[57] *See, e.g.,* Fidelity Magellan Fund, Form N-CSR (May 26, 2016).

[58] *See* Form N-Q, *supra* note 56, at Item 1; 17 C.F.R. § 210.12-12 (2016).

[59] Even sophisticated investors would need to conduct further research to be sure. Such companies are not the only ones that issue one or more series of preferred shares and, in fact, public companies also issue them.

The reports also provide only hints that such firms are private and the associated risks. Footnotes appended to these holdings reveal that the securities are "restricted," and Magellan explains therein that restricted securities have not been registered under the securities laws.[60] Unbeknownst to most, this means that such securities are not publicly traded, and the companies in which they represent an ownership interest may not be public either. Several pages later, in a discussion of "Significant Accounting Policies," the fund explains a key risk associated with private holdings, noting that restricted securities "may be difficult" to resell.[61] The fund does not further connect the dots in that it never informs investors that, when securities are difficult to resell, the fund's valuation of those securities is in its discretion; nor, of course, does it mention the inherent problems with the fund having such power.

While Magellan's quarterly disclosures may provide enough for sophisticated and diligent investors to be wary, this is of little comfort, given that mutual funds are aimed at the very people who would lack the knowledge to find the relevant information in these reports and then ascertain its meaning.

ii. Prospectus Disclosure Requirements

The securities laws shape the mutual-fund prospectus as the primary resource for fund investors. As such, it would be a promising location for disclosure of venture investments. At least in Magellan's case, however, meaningful disclosure is lacking.

Potentially relevant is that the rules require that the prospectus discuss, along with the fund's investment objectives, its principal strategies for reaching those objectives, and the

[60] *Id.*
[61] *Id.*

attendant risks.[62] Whether this broad disclosure mandate means that funds that invest in startups must so disclose is defined by more detailed rules that expand on these requirements. As noted, only "principal" strategies must be disclosed. According to the rules, whether an investment strategy is a "principal" one "depends on the strategy's anticipated importance in achieving the Fund's investment objectives."[63] To make this determination, in addition to considerations regarding the amount of fund assets deployed pursuant to a particular strategy, funds are also to consider "the likelihood of the Fund's losing some or all of those assets from implementing the strategy."[64] As part of its principal-strategy discussion, funds are to note, among other things, "the particular type or types of securities in which the Fund principally invests or will invest."[65]

Finally, to meet the risk disclosure obligation, funds must describe "the principal risks of investing in the Fund, including the risks to which the Fund's particular portfolio as a whole is expected to be subject and the circumstances reasonably likely to affect adversely the Fund's net asset value, yield, or total return."[66] The wording of these rules provides funds with a large degree of discretion in choosing what to say and how to say it.

Magellan did not view such requirements as necessitating disclosure of its venture investments. In a recent prospectus, the fund describes its objective as "capital appreciation."[67] It explains that its strategy for achieving capital appreciation is to purchase "growth" or "value" stocks or both.[68] As for the type of securities that underpin this strategy, Magellan says it invests

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[62] *See* Form N-1A, OMB No. 3235-0307, at Item 9, *available at* https://www.sec.gov/about/forms/formn-1a.pdf.
[63] *Id.* at Instruction 2 to Item 9.
[64] *Id.*
[65] Form N-1A, *supra* note 62, at Item 9(b)(1).
[66] *Id.* at Item 4.
[67] Fidelity Magellan Fund, Prospectus, at 5 (May 28, 2016).
[68] *Id*.

in equities, including "common stocks, preferred stocks, convertible securities, and warrants."[69] It decides how to allocate the fund's money through "fundamental analysis, which involves a bottom-up assessment of a company's potential for success in light of factors including its financial condition, earnings outlook, strategy, management, industry position, and economic and market conditions."[70] Finally, Magellan describes, in general terms, three categories of fund risks: "Stock Market Volatility," "Foreign Exposure," and "Issuer Specific Changes"—none of which mention, or have special relevance to, startups.

The fund's broad descriptions of its strategy and the associated risks fail to clearly indicate the presence of startups within the fund's portfolio. Though Magellan does allude to investments in preferred stock, as noted above, few retail investors are likely to connect this disclosure to the fund's practice of investing in emerging firms. Nor are the young companies in which the fund invests listed in the prospectus. While Magellan's sweeping generalizations about strategy and risk theoretically capture venture investing, given the historical practices and reputations of funds like Magellan, investors would likely view these disclosures as pertaining to public equities. The institutional context means that only direct disclosures would reframe investors' reasonable expectations.

[69] *Id.*

[70] *Id.* Form N-1A also instructs mutual funds to discuss non-principal strategies and the related risks in their SAIs. Form N-1A, *supra* note 62, at Item 16(b). Magellan's SAI contains no additional disclosures, however, perhaps because the fund views its description of its principal strategies and risks as broad enough to capture all of its investing activities.

iii. Limitations on Mutual-Fund Advertisements

Extensive rules pertain to mutual-fund advertisements, including the contents of their websites, but the only relevant requirement is that they not be materially misleading.[71] This backstop rule leaves mutual funds free to describe venture investments, but nothing requires them to do so.

Magellan's website makes no specific disclosures about its investments in young firms. Rather, it reinforces the impression that Magellan invests solely in big public companies. The top ten holdings list a series of household names including Apple, Facebook, and Home Depot.[72] The included "Style Map" describes Magellan as a large cap growth fund that focuses on companies valued at more than $10 billion.[73] The message is that Magellan managers seek to pick out the best investments from the largest listed companies.[74]

iv. Fund Name Regulations

A mutual fund's name can play an important role in shaping investors' expectations. A clear and descriptive name could put investors on notice that startups are present; a vague or misleading one, on the other hand, could imply just the opposite. Despite their potential to inform, the securities laws do not harness fund names as a regulatory tool. Rather than prescribe that a fund's name gives some indication of its strategy, the rules police the boundaries of naming practices.

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[71] *See* 17 C.F.R. § 230.156 (2016).
[72] *Fidelity Magellan Fund, supra* note 13.
[73] *Id.*
[74] A particularly interested investor could find the fund's list of holdings through a "Prospectus and Reports" link on its website. *See id.* Investors are unlikely to take this step, however, and, as noted in Part III.A.1.i., a portfolio list provides only part of what investors need to know to understand the implications of their fund's foray into venture investing.

The central rule is that names may not be "materially deceptive or misleading."[75] In discussing this language, the SEC has said that a name could be misleading if it does not fit the investment strategy of the fund.[76] Detailed rules police the fit issue in certain contexts.[77] The rules requires that if a fund's name suggests that it will focus its investing on a particular type of investment, like stocks or bonds, or a particular industry or industries, it must adopt a policy that it will invest 80% of its assets in accordance with those representations.[78] Essentially the same rule applies to funds purporting to invest in certain geographic regions or countries and those purporting to invest in tax-exempt instruments.[79] If a fund's name lacks such specificity, the fund has a great degree of latitude.

The name "Magellan" takes advantage of this freedom. It conjures the image of the famed Portuguese explorer, and in doing so, suggests boldness and exploration, but ultimately provides no insight into what is actually in the fund.

2. Summary—and a Note on Scale

Magellan never tells investors that it invests in emerging firms; nor does it describe the risks that the practice entails. Even worse, the two most likely sources of information—the fund prospectus and website—leave investors with the contrary impression. In all likelihood, the vast

[75] *See* 15 U.S.C. § 80a-34(d) (2016).
[76] *See* Investment Company Names, Investment Company Act Release No. 24828, 66 Fed. Reg. 8,509, 8,514 (Feb. 2, 2001) ("[i]n determining whether a particular name is misleading, the Division will consider whether the name would lead a reasonable investor to conclude that the company invests in a manner that is inconsistent with the company's intended investments or the risks of those investments.").
[77] *See* 17 C.F.R. § 270.35d-1 (2016); Investment Company Names, *supra* note 76, at 8,509 ("Today the Commission is adopting new rule 35d-1 to address certain investment company names that are likely to mislead an investor about a company's investment emphasis.").
[78] *See* 17 C.F.R. § 270.35d-1; Investment Company Names, *supra* note 76, at 8,510.
[79] *See* 17 C.F.R. § 270.35d-1.

majority of the fund's participants have no idea that Magellan has transformed them into VC investors.

This is problematic even though, as of its March 2016 quarterly report, Magellan had $166 million invested in venture-stage firms, which is only 1.1% of its $15 billion asset base. I argued above that notifying investors of venture investments is important because otherwise such investments would fall outside their reasonable expectations, and that adherence to such expectation was particularly important here because of the fiduciary character of the manager-shareholder relationship and the potential for manipulation that such investments give rise to. The relative size of a fund's exposure vis-à-vis the remainder of its portfolio does not alter that analysis. As is the case with Magellan, the absolute stakes can still be large. Regardless, because of the risk of misconduct, transparency is necessary even if stakes are small (in relative or absolute terms).[80]

This idea is reflected in central doctrines from corporate and securities law, which mandate disclosure when there is the risk of manipulation, or where incentives are misaligned, even if the amounts involved would otherwise appear inconsequential. Corporate law requires complete disclosure of conflicts of interest regardless of amount.[81] Investment advisers, like Fidelity, are bound by the same standard.[82] The strict nature of these obligations stems from the

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[80] Nor does it matter that losses would be spread across the fund's many investors. *See* Floyd Norris, *Pile of Pennies Is Adding Up to a Scandal in Mutual Funds.* N.Y. TIMES, Nov. 1, 2003, at C1 (discussing how small individual losses result in a windfall for those who stand to gain).
[81] *See* 8 DEL. GEN. CORP. L. § 144 (2016). *See also* Andarko Petroleum Corp. v. Panhandle E. Corp., 545 A.2d 1171, 1174 (Del. 1988) ("It is a basic principle of Delaware General Corporation Law that directors are subject to the fundamental fiduciary duties of loyalty and disinterestedness. Specifically, directors cannot stand on both sides of the transaction nor derive *any* personal benefit through self-dealing." (emphasis added)).
[82] As part of its fiduciary duty, an adviser must fully disclose to its clients all material information that is intended "to eliminate, or at least expose, *all* conflicts of interest which might incline an investment adviser—consciously or unconsciously—to render advice which was not

fiduciary nature of the relationships at issue—management and shareholder in the former and investment advisor and client in the latter.

In addition, although "materiality" is the guiding principle for disclosure in securities regulation, quantitatively immaterial information has long been called for when there is the risk of shareholder abuse. For example, nearly every detail of executive compensation must be disclosed irrespective of the amount.[83] Similarly, all conflict-of-interest transactions over $120,000 must be disclosed—a minute figure for even the smallest public companies.[84]

More generally, the doctrine of qualitative materiality recognizes that misstatements with respect to small amounts might be material if they implicate management integrity. According to the SEC, a small misstatement would be material, for example, if it increases "management's compensation," "masks a change in earnings or other trends," or conceals an "unlawful transaction."[85]

Although Magellan's VC holdings are relatively small, they still amount to an enormous sum, and even if the fund was less exposed, the potential for misconduct inherent in such investments militates in favor of disclosure nonetheless. That the presence of venture investments, and the risks they entail, is never made clear to investors indicates noncompliance by Magellan or a regulatory gap.

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disinterested." SEC. & EXCH. COMM'N, *supra* note 50, at 22, quoting SEC v. Capital Gains Research Bureau, Inc., 375 U.S. 180, 191-92 (1963) (emphasis added).

[83] *See* Regulation S-K, Item 402.

[84] *See id.* at Item 404.

[85] SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45,150, 45,151 (1999).

3. Inadequate Rules or Compliance Deficit

While Magellan could have done more to inform investors, it does not appear that the fund fell short of its legal obligations. One could argue that, because of the large downside risk associated with investing in startups, the strategy qualifies as a "principal" one necessitating disclosure in the prospectus.[86] But Magellan has a good argument that even large losses would have a small impact on its bottom line: even a 50% loss would be one-half of 1% of its total assets. One could also argue that Magellan's website is materially misleading, but again the size of the investment cuts against this position, and diligent investors can find holdings information linked to the fund's website.[87] Finally, it could be argued that the principle of qualitative materiality just described suggest that, notwithstanding the language of the rules, Magellan should have included more information.

But SEC guidance seems to bless the basic and high-level disclosures that Magellan offers. Rule changes in 1998[88] eased the disclosure requirements with respect to fund strategies in an attempt to render the documents less lengthy and complicated.[89] In proposing the rule, the SEC even expressed concern that companies were unnecessarily discussing "illiquid" securities that were not part of a fund's principal investment strategy.[90] The best interpretation of

[86] *See* note 62 and accompanying text.
[87] *See* note 72 and accompanying text.
[88] *See* Registration Form Used by Open-End Management Investment Companies, Securities Act Release No. 7512, 63 Fed. Reg., 13,916, 13,916, 13,920 (Mar. 23, 1998).
[89] *See* Registration Form Used by Open-End Management Investment Companies, Securities Act Release No. 7398, 62 Fed. Reg., 10,898, 10,900 (Mar. 10, 1997).
[90] *Id.* at 10,909 ("The investments described often include instruments, such as illiquid securities, repurchase agreements, and options and futures contracts, that do not have a significant role in achieving a fund's investment objectives. Disclosing information about each type of security in which a fund might invest does not appear to help investors evaluate how the fund's portfolio will be managed or the risks of investing in the fund. This disclosure also adds substantial length and complexity to fund prospectuses, contributing to investor perceptions that prospectuses are too complicated and discouraging investors from reading a fund's prospectus.")

Magellan's conduct seems to be that it is complying with the rules, such as they are, but the SEC did not foresee the venture-investing trend and sanctioned a level of disclosure that leaves investors with inadequate information.

B. Liquidity Concerns

Startup investing also poses liquidity risk. The lack of a market for venture investments runs contrary to the legally grounded investor expectation that they will be able to redeem mutual-fund shares almost immediately. By rule, funds are required to redeem their investors' shares within seven days of such requests,[91] but the industry norm is to do so within one day.[92] Since VC holdings are illiquid, and therefore unavailable to meet such requests, if a large percentage of a fund's portfolio is allocated to them, a fund might be unable to meet its obligations in times of stress. Such holdings also threaten other aspects of the fund's strategy. With these holdings unavailable for sale, other assets must be traded to generate the cash to repurchase shares from investors even if a fund would prefer to retain them.

Venture holdings are among the most illiquid financial assets. Like other private firms, there is no active market on which to trade such securities.[93] Much debt, in contrast, while

[91] *See* 15 U.S.C. § 80a-22(e) (2016).
[92] *See* Open-End Fund Liquidity Risk Management Programs; Swing Pricing; Re-Opening of Comment Period for Investment Company Reporting Modernization Release, Securities Act Release No. 9922, 80 Fed. Reg. 62,274, 62,277 (Oct. 15, 2015) [hereinafter Liquidity Risk Management].
[93] *See* Schwartz, *supra* note 23, at 556-58 (discussing the rise and decline of private-share-trading platforms like SharesPost and SecondMarket); Katie Benner, *Airbnb and Others Set Terms for Employees to Cash Out*, N.Y. TIMES, Aug. 10, 2016, *available at* http://www.nytimes.com/2016/08/12/technology/airbnb-and-others-set-terms-for-employees-to-cash-out.html. The most likely avenue for a mutual fund looking to exit would be a sale back to management or to a private-equity buyer. *See* Douglas Cumming, VENTURE CAPITAL: INVESTMENT STRATEGIES, STRUCTURES, AND POLICIES 396 (2010). To mitigate liquidity risk, there is evidence that funds negotiate for greater redemption rights than other VC buyers. *See*

appropriately described as illiquid, is often thinly traded.[94] In times of stress, the relative illiquidity of debt is problematic, but at least on a routine basis there is somewhere to sell. That is not the case with startups.

To counter illiquidity risk and police the seven-day redemption requirement, SEC guidelines limit mutual-fund investments in illiquid assets to 15% of their portfolios.[95] The agency defines such assets as those "which may not be sold or disposed of in the ordinary course of business within seven days at approximately the value at which the mutual fund has valued the investment."[96] Because the SEC has said that shares in private companies presumptively meet this definition,[97] startup holdings fall in this category.

In the context of equity mutual funds, where the remaining holdings are predominantly in public companies, this 15% cap provides ample protection.[98] Thus, so long as funds are

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Chernenko, *supra* note 16, at 23 (finding that redemption rights are 15% more prevalent in VC funding rounds where mutual funds are investing). Redemption rights, however, are little comfort. *See* Scott Edward Walker, *Demystifying the VC Term Sheet: Redemption Rights*, VENTUREBEAT (July 4, 2011, 6:00AM), http://venturebeat.com/2011/07/04/demystifying-the-vc-term-sheet-redemption-rights/.

[94] *See* Money Market Fund Reform, *supra* note 11, at 47,813-814 (stating that "money market portfolio securities are not frequently traded" and that "many debt securities held by other types of funds do not frequently trade").

[95] Revision of Guidelines to Form N-1A, Securities Act Release No. 33-6927, 57 Fed. Reg. 9,828, 9,829 (Mar. 20, 1992).

[96] *Id.*

[97] Resale of Restricted Securities; Changes to Method of Determining Holding Period of Restricted Securities Under Rules 144 and 145, Securities Act Release No. 6862, 55 Fed. Reg. 17933, 17940 (Apr. 30, 1990).

[98] *See* Revision of Guidelines to Form N-1A, *supra* note 95, at 9828 & n.9; Jason Zweig, *Buy the ETF, Not the Mutual Fund,* WALL ST J. (Dec 18, 2015, 1:19 pm ET), http://blogs.wsj.com/moneybeat/2015/12/18/buy-the-etf-not-the-mutual-fund/ ("Mutual funds almost never halt redemptions"). Mutual funds are also investing in other illiquid assets, which may pose liquidity challenges. *See* Kara M. Stein, Commissioner, U.S. Sec & Exch. Comm'n, Mutual Funds – The Next 75 Years (June 15, 2015), https://www.sec.gov/news/speech/mutual-funds-the-next-75-years-stein.html#_ftnref35; Liquidity Risk Management, *supra* note 92, at 62,281. For that reason, the SEC has proposed new liquidity rules that would complement the 15% cap. *See generally* Liquidity Risk Management, *supra* note 92.

complying with the rule, there is little concern that they will be unable to meet their redemption commitments. And Magellan does not come close to the 15% limit. The allocation to venture-stage firms in the period studied never exceeded around 1%. Outside of one anomalous quarter, its total investment in illiquid assets has remained below 2%.[99] If other funds are behaving like Magellan, the illiquidity of startup investments does not appear to be a large concern.

C. Investment and Valuation: Management Competency and Candor

Although the illiquidity of startups may not pose a major threat to the ability of funds to timely redeem investor shares, investing in emerging firms and later valuing them gives rise to significant concerns about management competence and candor. While regulations do little to directly police whether portfolio managers are competent to invest in and value startups, overlapping securities laws and accounting rules contain a number of procedural and disclosure requirements designed to instill rigor and honesty into the valuation process. Despite its safeguards, however, this regulatory approach appears insufficient. Judging by Magellan's disclosures and valuations, the risk remains that management is making bad investments and then inappropriately valuing them.

1. Why Improper Valuations are a Problem

Bad investments are clearly harmful to fund shareholders, but flawed valuations are problematic as well. In fact, because of the central role that valuations play in mutual-fund

[99] This figure represents the portion of Magellan's portfolio invested in level 2 or level 3 assets. This nomenclature is discussed *infra* notes 152-155 and accompanying text. In the fourth quarter of 2012, the fund had 4.4% of its assets in one of these two categories, the vast majority of which fell in level 2.

operations, the SEC has referred to valuation accuracy as "a primary principle underlying the Investment Company Act."[100]

Once a mutual fund makes an investment, it is required to ascribe a value to that investment each day.[101] These daily valuations are the key component of the firm's net asset value ("NAV"), which is the total value of the fund.[102] When mutual-fund shareholders redeem their shares, they receive the per share net asset value.[103] This is also the price at which fund shares are purchased.[104] If this value is incorrect, both redeemers and buyers will transact at the wrong price.[105]

To see the problem with incorrect prices, assume a fund's venture portfolio and, by extension, its net assets, are overvalued. Those redeeming their shares will receive too high a price and those buying will pay too high a price. The excess returns the redeeming shareholder receives are an indirect transfer from the remaining mutual-fund investors, who see the value of their holdings inappropriately diluted.[106] The buyer would also suffer if the investor redeems the purchased shares after the valuation has been corrected.

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[100] *See* Money Market Fund Reform, *supra* note 11, at 47,777.
[101] *See* 17 C.F.R. § 270.22c-1(b) (2016).
[102] *See* 17 C.F.R. § 270.2a-4(a); Money Market Fund Reform, *supra* note 11, at 47,777.
[103] *See* 17 CFR § 270.22c-1.
[104] *See id.*
[105] Unlike the prices of shares in a publicly traded company, which would adjust to take into account the trading of sophisticated parties, fund NAVs remain static even if they depart from fundamental value. While the disparity conceivably opens up a profit opportunity that would be realized when the fund updates its pricing, the opportunity would be difficult to exploit because it would be hard for investors to gauge the extent of the mispricing and estimate the time frame for correction.
[106] *See* Money Market Fund Reform, *supra* note 11, at 47,778 (discussing the impact of redemptions at inflated prices on remaining shareholders). The impact would be felt when valuations are rectified. At that point, the NAV will have been artificially reduced by the exaggerated payment to the redeeming shareholder without an offset for the inflated valuation.

On a broader lever, exaggerated valuations causes a misallocation of resources in the fund marketplace and between investors and management. Buyers may have been wrongfully induced to invest in a certain fund based on the inflated values, which would have artificially exaggerated past returns. The inflated figures would also have led to inappropriately high compensation for the managers, whose pay is based on the NAV, and comes out of the returns of fund shareholders. The multifaceted reliance on NAVs, and the potential harms to investors and other funds that stem from inaccurate estimates of its components, underlie the importance of getting valuations right.

2. Fund Manager Competence Concerns

There are a number of reasons to doubt the capacity of mutual funds to make wise startup investments and then value those investments accurately. Venture-capital investing poses a number of novel challenges for fund managers who presumably have built their careers investing in public companies.

First, their skills do not readily translate to the startup world. While the fundamentals of company valuation are constant, the particular techniques involved differ greatly across these different spheres. Valuing public companies involves poring through SEC disclosures and press releases to obtain figures that get plugged into models based on the Capital Asset Pricing Model ("CAPM") and its progeny.[107] The key valuation figure is profits or some stripped down version of it, like EBITDA.[108] But startups usually have no profits and CAPM plays, at most, a modest

[107] *See* CHARLES P. JONES, INVESTMENTS 245-70 (11th ed. 2010).
[108] *See id.* at 378 n.10. EBITDA stands for earnings before the deduction of interest, taxes, depreciation, and amortization.

role. Instead, valuation is based largely on guestimates of the company's growth prospects.[109] The process is much less mathematically rigorous and much more dependent on relationships and experience.[110]

Second, the security being purchased is a different animal. On the public markets, mutual funds typically invest in plain vanilla common stock. VC investments in preferred shares involve much more complicated ownership and liquidation rights that would be largely foreign to a public-markets devotee.[111] Since mutual-fund managers do not live in the VC-world, there is a distinct possibility that they are buying at the peak of a startup bubble.

Their inexperience in valuing startups also calls the subsequently reported valuations into doubt. When mutual funds invest in publicly traded equities, there is no risk of misreporting the carrying value of those firms. Because there is a liquid market, and a precise market price, the NAV calculation is a matter of arithmetic. Since startups are private, however, there is no such market price. Nevertheless, mutual funds must estimate a price each day—a task they are ill-equipped to perform.

Indeed, even valuation savants could not do what is being asked of these VC neophytes. It is one thing to price Uber once; it is another to reevaluate how internal and external events, nationally and internationally, shape its prospects each day. It is not as if startups are producing daily audited financials and business retrospectives for NAV purposes; nor can fund managers

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[109] *See* JOSH LERNER ET AL., VENTURE CAPITAL AND PRIVATE EQUITY: A CASEBOOK 181-200 (5th ed. 2012) (describing venture capital valuation techniques).

[110] *See* Mary Jo White, Chairperson, Sec. & Exch. Comm'n, Keynote Address at the SEC-Rock Center on Corporate Governance Silicon Valley Initiative (Mar. 31, 2016), https://www.sec.gov/news/speech/chair-white-silicon-valley-initiative-3-31-16.html ("Nearly all venture valuations are highly subjective.")

[111] *See generally* NAT'L VENTURE CAPITAL ASS'N, SAMPLE TERM SHEET FOR SERIES A PREFERRED STOCK FINANCING (2009) (providing for, among other things, governance rights, conversion rights, and preferred liquidation rights).

scour the global press each day for pertinent developments.[112] Given these limitations, fund valuations are inherently rough.[113]

Startups are even more difficult to value, both initially and over time, than other illiquid assets. Mature private firms have historical returns to survey. They are also likely to have public companies to which they can be readily compared. The whole idea of startups, in contrast, is that there are no good comparables.[114]

Likewise, as noted above, much debt that is described as illiquid is at least thinly traded, which provides some market data.[115] In contrast, there is no market where startup shares are exchanged and prices are publicly disclosed.[116] The value of debt can also be more easily modeled. Valuing startups is a guessing game, whereas mutual funds can use "matrix pricing" for debt instruments, arriving at a price "derived from a range of different inputs, with varying weights attached to each input, such as pricing of new issues, yield curve information, spread information, and yields or prices of securities of comparable quality, coupon, maturity and price."[117] While this process does not assure accuracy, there is more to go on in the analysis than

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[112] *See* Lizette Chapman, *Why Mutual Funds Can't Agree on What Unicorns Are Worth*, BLOOMBERG BUSINESSWEEK (Mar. 31, 2016), http://www.bloomberg.com/news/articles/2016-03-31/what-s-this-startup-worth-mutual-funds-can-t-get-their-stories-straight (according to the CEO of Domo, Josh James, as quoted in the article, "People that aren't experts at valuing private companies are trying to act like experts," James says. "Even when they have less information than the VCs.").

[113] Some funds may be turning to third-party pricing services to assist in valuations. *See* Sarah Krouse and Kristen Grind, *Wall Street Cop Ask Money Managers to Reveal Silicon Valley Valuations*, WALL S. J., Dec. 9, 2016, *available at* http://www.wsj.com/articles/wall-street-cop-asks-money-managers-to-reveal-silicon-valley-valuations-1481305082. If these services are experts in the area, then outsourcing valuations to these parties relieves competence concerns, although the inherent difficulty of the task means such valuations would still be guestimates.

[114] This is not always the case. Dropbox, for example, has a great public comparable—Box.

[115] *See supra* note 94 and accompanying text.

[116] *See supra* note 93 and accompanying text.

[117] Money Market Fund Reform, *supra* note 11, at 47,813.

there is when trying to figure out what Uber is worth. Moreover, at least those investing in and later valuing debt instruments for bond funds or money market funds, which are required to invest in short-term debt,[118] are ostensibly experts in debt. Unlike Magellan and its ilk, they are not dabbling in something for which the fund lacks historical expertise.

3. Fund Manager Candor Concerns

Mutual funds' ability to accurately estimate the value of startups at purchase or each day thereafter is one concern. Worse still, there is a significant incentive for funds to massage the reported valuations.

The most obvious abuse would be to exaggerate the value of the startups in the fund's portfolio.[119] As previously noted, managers are paid based on their assets under management.[120] By inflating the value of their investments, the asset managers make more. Inflating valuations also increases returns, which attracts new investors and increases the likelihood that existing ones stay.[121] In addition, the higher returns allow funds to outpace their peers and the benchmarks to which they are compared.[122]

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[118] *See* 17 CFR § 270.2a-7(d)(1) (2016).
[119] Hedge funds have recently drawn scrutiny for potentially overvaluing their illiquid assets. *See* Jenny Strasburg, *SEC Probes 'Side Pocket' Arrangements*, WALL ST. J., April 28, 2010, *available at* http://www.wsj.com/articles/SB10001424052748703832204575210671819894474. The incentive to inflate startup valuations may manifest as intentional misconduct or may take the form of an implicit, even subconscious, bias toward higher values. Even a small bias can have a large effect, however, because minor changes to assumptions can lead to major changes to valuations. *See* LERNER ET AL., *supra* note 109, at 181.
[120] *See* Schwartz, *supra* note 35, at 560 & n.221.
[121] *See id.* at 546 & n.149.
[122] It could be argued that fund managers would not have an incentive to overvalue startups because the firms eventually go public and the price transparency associated therewith would necessitate a valuation reckoning. There are several reasons, however, why the incentive to inflate would overpower the countervailing force of this contingency. First, many firms may never go public. As discussed above, IPOs are becoming less and less common. If there is no

Managers could also use their discretion over valuation to smooth returns. Rather than consistently report inflated valuations, funds could time shift changes so that they appear when most advantageous or least harmful. Along these lines, funds could report negative valuations when the remainder of the portfolio is doing well and vice versa. This type of smoothing would reduce volatility, which would make the fund appear less risky and therefore more attractive. Funds could also smooth against their benchmark—reporting gains when they need them to keep pace and losses when the fund can absorb them without falling behind.

While there is a similar opportunity for misconduct with other illiquid assets, the concern is more salient with startups. The slipperiness of venture valuations means there is a wide range of plausible estimates, making biased ones difficult to differentiate from mistaken ones. The more latitude for abuse, the more tempting it is for funds to take advantage.

4. Fund Manager Competence Regulation

The securities laws do little to address the concern that mutual-fund managers are reaching beyond their expertise. Investment advisers, like Fidelity, and their representatives are

IPO, there is never a public price. Second, even if a firm goes public, the prospect of short-term gains may very will trump the long-term risk. This was one of the many lessons from the financial crisis and is seen repeatedly in managerial behavior. *See generally* Lynne Dallas, *Short-Termism*, *The Financial Crisis, and Corporate Governance*, 37 J. CORP. L. 265 (2012). Moreover, fund managers compensated based on the inflated values would not have to give the money back, so even if they need to lower values at the IPO, they still would come out ahead. Indeed, a fund manager who cheats may be long gone by the time of the IPO, particularly given that the time from founding to IPO continues to lengthen. *See* BEGUM ERDOGAN ET AL., GROW FAST OR DIE SLOW (2016), http://www.mckinsey.com/industries/high-tech/our-insights/grow-fast-or-die-slow-why-unicorns-are-staying-private. Third, the valuations might become a self-fulfilling prophecy (or managers might harbor this hope). If this were to happen, no downward adjustment would be necessary. All of these considerations give managers reason to inflate even if IPOs are possible.

subject to a great deal of regulatory oversight.[123] While the rules set minimum standards of professionalism,[124] nothing assures investors that advisers are acting in accordance with their core competencies. The only protection comes from disclosure rules, but these provide only limited insight into the fund manager's expertise. The rules require that funds report in their prospectus the business experience of their top portfolio managers for the last five years.[125]

Magellan's responsive disclosure shows the limitations of this rule and bolsters competency concerns. In a recent prospectus, Magellan says that the fund's portfolio manager, Jeffrey Feingold, has managed the fund since 2011, and that he has been with Fidelity since 1997 as a research analyst and portfolio manager.[126] These sparse disclosures do little to help fund investors evaluate Mr. Feingold; worse yet, the limited information provided suggests that he lacks VC experience. Outside sources confirm this impression. According to the Wall Street Journal, prior to Fidelity, Mr. Feingold was "an equity analyst following the footwear, apparel and textile industries."[127] Whatever VC experience Magellan has does not come from Mr. Feingold. While it is possible that the fund has made special hires to address this area, investors would never know, as there is no basis on which to assess the fund's overarching expertise as it relates to this specialized area.[128]

[123] *See generally* SEC. & EXCH. COMM'N, REGULATION OF INVESTMENT ADVISERS (2013). Investment adviser representatives are largely regulated at the state level. *See* SEC. & EXCH. COMM'N, *supra* note 50, at 15, 86-87.
[124] *See* SEC. & EXCH. COMM'N, *supra* note 50, at 27-28.
[125] *See* Form N-1A, *supra* note 62, at Item 5(b); Item 10(a)(2).
[126] Fidelity Magellan Fund, *supra* note 67, at 14.
[127] Mary Pilon, *Fidelity Magellan Gets New Helmsman*, WALL ST. J., Sept. 14, 2011, *available at* http://www.wsj.com/articles/SB10001424053111904265504576568793213103996.
[128] There were no media reports of VC experts moving to Magellan; it also seems like an unlikely career move for already successful VC-fund managers.

Even though regulation does not directly address competency concerns, and what we know about Magellan's portfolio manager reinforces them, the nature of the fund's investment practices provides some comfort. As shown in table 1, Magellan tends to invest in later-stage startups, choosing to usually take part in Series D rounds and later. These companies are less risky than brand new ones[129] and more similar to the public firms in which the fund typically invests.

Moreover, Magellan often invests alongside venture capital and other private equity funds. While these investors are fallible as well, that experts in the area are investing on ostensibly the same terms gives some legitimacy to the decision to invest. Surprisingly, however, Magellan has served as the lead investor several times,[130] meaning that it has been the first to sign-on to the investment and, in those cases, has worked with the entrepreneur to structure the terms of the funding round.[131]

Magellan's practice of investing mostly in late-stage startups and doing so alongside experienced VC investors generally lessens competence concerns. But it does not eliminate them. Late-stage startups are still startups and even VC experts make mistakes. Magellan also makes investments where these mitigating factors are dulled. For example, Magellan, along with one or more other Fidelity funds, were the only ones to invest in the Malwarebytes $50 million Series B round—and Magellan's $35 million stake in the round makes up about 1/4 of the fund's

[129] *See* J.H. Cochrane, *The Risk and Return of Venture Capital*, 75 J. FIN. ECON. 3-52, 5 (2005).
[130] According to crunchbase, a crowdsourced VC data repository, Fidelity led the rounds for Uber's Series D, Roku's Series G and F, and Cloudflare's Series D. *See* www.crunchbase.com (last visited, Dec. 20, 2016).
[131] *See* Yong Li, *Venture Capital Staging: Domestic Versus Foreign VC-Led Investments*, 354, 360, *in* THE OXFORD HANDBOOK OF VENTURE CAPITAL (Douglas Cumming ed. 2012).

current VC portfolio.[132] Finally, the safety of being flanked by VC firms only lends confidence to the initial investment; the fund's subsequent valuations, regardless of who participated in the funding round, remain suspect.[133]

5. Valuation Regulations

Because mutual funds have been investing in assets without a readily determinable market value for years, the risk of incompetent or biased valuations has long been a concern for regulators.[134] As such, there is a regulatory regime in place to police pricing practices, which consists of both securities-law and accounting rules.

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[132] *See* Press Release, Malwarebytes Inc., Malwarebytes Raises $50 Million Investment from Fidelity (Jan. 21, 2016), https://press.malwarebytes.com/2016/01/21/malwarebytes-raises-50-million-investment-from-fidelity/. Though $50 million is quite large for a Series B round, which suggests that the company may have raised money prior to its Series A under a different naming convention (e.g., Seed-1, Seed-2, etc.) without reporting it, this was not the case. *See* William Alden, *Malwarebytes, an Antivirus Start-Up, Raises $30 Million*, DEALBOOK (July 10, 2014, 7:32AM), https://dealbook.nytimes.com/2014/07/10/malwarebytes-an-antivirus-start-up-raises-30-million/?src=twr&_r=0. Arguably, however, the round's size itself makes this investment look more like Magellan's typical late stage entries. Even so, no VC firms participated in the round.

[133] A potential check on these later valuations is that, from time to time, Fidelity invests with other mutual funds in the startup rounds, which also must publicly report their valuations each quarter. *See Startup Stock Tracker*, *supra* note 32. When this is the case, Fidelity, in addition to the other funds, may fear reporting outlier valuations. This may lead to increased caution. Less optimistically, however, the group dynamics may lead to herding or outright copying of the first to report. One could also picture a feedback loop, where a bubble forms among these funds as valuations ratchet skyward.

[134] *See* Money Market Fund Reform, *supra* note 11, at 47,740-741 (discussing valuation of thinly traded debt); *see generally* Restricted Securities, *supra* note 10 (discussing valuation of private firms).

i. Securities Laws Regarding Mutual Fund Valuation Practices

The central valuation rule from the securities laws is that "[p]ortfolio securities with respect to which market quotations are readily available shall be valued at current market value, and other securities and assets shall be valued at *fair value* as determined in *good faith* by the board of directors of the registered company."[135] Since startup shares do not have a market price, this means that the board needs to posit a "fair value" in "good faith."

The SEC has provided guidance on the meaning of both of these terms. According to the agency, "the fair value of a portfolio security is the price which the fund might reasonably expect to receive upon its current sale."[136] The "current sale" part of this definition means that companies must calculate the price that the mutual fund would have to accept today if it were to sell, which necessarily includes a discount for the stock's illiquidity.[137]

The fair value inquiry is meant to be comprehensive. Board members are to "satisfy themselves that all appropriate factors … have been considered."[138] Such an analysis is to include consideration of both firm-level information and information about external events.[139]

To comply with its duty to conduct the portfolio valuation in good faith, the board members must act in accordance with "the duties of care and loyalty that they owe to the fund."[140] More specifically, the SEC has instructed as follows:

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135 17 C.F.R. § 270.2a–4(a)(1) (2016) (emphasis added); *see also* 15 U.S.C. § 80a–2(41) (2016).
136 Douglas Sheidt, Division of Investment Management: December 1999 Letter to the ICI Regarding Valuation Issues (Dec. 8, 1999), *available at* https://www.sec.gov/divisions/investment/guidance/tyle120899.htm#FOOTBODY_9.
137 *See id*; Restricted Securities, *supra* note 10, at 19,990.
138 Accounting for Investment Securities by Registered Investment Companies, Investment Company Act Release No. 6205, 35 Fed. Reg. 19,986, 19,988 (Dec. 31, 1970).
139 *See id.*
140 Douglas Sheidt, Division of Investment Management: April 2001 Letter to the ICI Regarding Valuation Issues (Apr. 30, 2001), https://www.sec.gov/divisions/investment/guidance/tyle043001.htm.

> a fund board generally would not be acting in good faith if, for example, the board knows or has reason to believe that its fair value determination does not reflect the amount that the fund might reasonably expect to receive for the security upon its current sale. In addition, a fund board generally would not be acting in good faith if it acts with reckless disregard for whether its fair value determination reflects the amount that the fund might reasonably expect to receive for the security upon its current sale.[141]

Even though the rules allocate responsibility for valuation to the board and provide it with good-faith guidance, in practice the board is not expected to value securities daily. Rather, it must set up[142] and continuously review[143] policies and procedures for management to follow in conducting the valuations. According to the SEC, "[t]hese policies and procedures should encompass all appropriate factors relevant to the valuation of investments for which market quotations are not readily available."[144]

Disclosure requirements buttress the internal-controls rules. A mutual fund must explain its valuation methodology both in its prospectus and SAI.[145] Also, when they disclose their financial statements, which occurs biannually, they must include a discussion of their valuation procedures in the accompanying notes.[146]

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[141] *Id.*

[142] *See* Sheidt, *supra* note 136.

[143] *See* Sheidt, *supra* note 140.

[144] Lawrence A. Friend, SEC Staff Generic Comment Letter for Investment Company CFOs (Nov. 1, 1994), https://www.sec.gov/divisions/investment/noaction/1994/cfo110194.pdf. The board's responsibility to set up internal controls to satisfy its valuation obligations has also been read into Rule 38a-1 of the Investment Company Act, which requires funds to "[a]dopt and implement written policies and procedures reasonably designed to prevent violation of the Federal Securities Laws." 17 C.F.R. § 270.38a-1 (2016); Compliance Programs of Investment Companies and Investment Advisers, Investment Company Act Release No. 26299, 68 Fed. Reg. 74,714 (Dec. 24, 2003). Mutual funds also have an internal controls requirement with respect to financial reporting, which also could be read to implicate fair valuation procedures. *See* 17 C.F.R. § 270.30a-3 (2016).

[145] *See* Form N-1A, *supra* note 62, at Item 11 & 23.

[146] *See* 17 C.F.R. § 210.6-03 (2016).

Finally, the values themselves need to be disclosed. Funds must independently report the value of each holding every quarter.[147] The securities-law regime thus boils down to a requirement that funds enact, review, and update policies and procedures to value illiquid investments and disclose their protocols and the resulting valuations.

ii. Generally Accepted Accounting Principles

Mutual fund financial statements must adhere to General Accepted Accounting Principles ("GAAP"), which include extensive rules on fair valuation in Accounting Standards Codification ("ASC") 820.[148] ASC 820 is somewhat more prescriptive than the securities rules. It specifies general methodologies for valuation (either based on discounted income flows or comparisons with like financial assets)[149] and a hierarchy of inputs in applying those methodologies.[150] The key to the hierarchy is the distinction ASC 820 makes between observable inputs, which are preferred, and unobservable inputs, which are disfavored. Observable inputs are based on market data whereas unobservable inputs are based on the reporting company's assessment of "the assumptions that market participants would use when pricing the asset."[151] In addition to the observable/unobservable dichotomy, the ASC also groups inputs into three "Levels."[152] The disfavored unobservable inputs are categorized as Level 3.[153] Since there is no market for startup shares, their valuation is based on these inputs of last resort.

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[147] See sources cited *supra* note 56; *see also* 17 C.F.R. § 210.12-12 (2016).
[148] FINANCIAL ACCOUNTING STANDARDS BOARD, FAIR VALUE MEASUREMENT (TOPIC 820), *available at* https://asc.fasb.org/imageRoot/00/7534500.pdf.
[149] *See id.* at 27.
[150] *See id.* at 40.
[151] *Id.* at 50.
[152] *See id.* at 42-51.
[153] *See id.* at 50. *See also* Money Market Fund Release, *supra* note 11, at 47,858 n. 1466 (providing an overview of the three-level structure).

As with the securities laws, disclosure rules supplement the procedural rules. The ASC requires a description of the fund's valuation methodology[154] and a breakdown of total assets into categories corresponding to how they were valued (i.e., through Level 1, Level 2, or Level 3 inputs).[155]

Finally, auditors lend their assessment. Mutual funds must include audited financial statements[156] and an audited schedule of investments in their annual reports.[157] For the audits, rather than confirm final valuation figures for difficult-to-value assets, the auditors review whether "the fund's valuation method was appropriate in the circumstances and applied consistently."[158]

In requiring that companies use certain valuation techniques, describe their inputs, and subject their analyses to auditing, the accounting rules require a degree of specificity beyond that which is called for by the more flexible and general securities-law rules. Even so, Magellan's compliance illustrates that these rules do not add meaningful transparency and that manipulation concerns remain.

[154] *See id.* at 59.
[155] *See id.* at 61.
[156] *See* Form N-1A, *supra* note 62, at Item 27(b)(1); § 17 C.F.R. 210.3-18 (2016).
[157] *See* Form N-CSR, *supra* note 56, at Item 6.
[158] INVESTMENT COMPANY INSTITUTE, AN INTRODUCTION TO FAIR VALUE 19 (2005), *available at* https://www.ici.org/pdf/05_fair_valuation_intro.pdf. For other assets, the auditors will independently verify valuations. *Id.* Fair value audits are recognized within the accounting industry as among the most complex and problematic. *See* Emily E. Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*, 32 CONTEMP. ACCOUNTING RESEARCH 833-34 (2015).

iii. Magellan's Compliance with the Valuation Rules

Magellan's disclosures shed little light on how it values its venture investments. A recent prospectus contains several paragraphs on valuation, but the only relevant disclosure is that "[i]f market quotations, official closing prices, or information furnished by a pricing service are not readily available or, in the Adviser's opinion, are deemed unreliable for a security, then that security will be fair valued in good faith by the Adviser in accordance with applicable fair value pricing policies."[159] An expanded valuation discussion in the SAI provides no further insight into startup valuations.[160]

The disclosures accompanying the fund's financial statements go into more detail, but are still too general to be useful. For example, in an annual report for the fiscal year ending March 31, 2016, the relevant disclosures are found in two paragraphs in note three to its financial statements titled "Significant Accounting Policies." The first paragraph is broadly responsive to the securities-laws requirements:

> The Board of Trustees (the Board) has delegated the day to day responsibility for the valuation of the Fund's investments to the Fidelity Management & Research Company (FMR) Fair Value Committee (the Committee). In accordance with valuation policies and procedures approved by the Board, the Fund attempts to obtain prices from one or more third party pricing vendors or brokers to value its investments. When current market prices, quotations or currency exchange rates are not readily available or reliable, investments will be fair valued in good faith by the Committee, in accordance with procedures adopted by the Board. Factors used in determining fair value vary by investment type and may include market or investment specific events. The frequency with which these procedures are used cannot be predicted and they may be utilized to a significant extent. The Committee oversees the Fund's valuation policies and procedures and reports to the Board on the Committee's activities and fair value determinations. The Board monitors the appropriateness of the procedures used in valuing the Fund's investments and ratifies the fair value determinations of the Committee.[161]

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[159] Fidelity Magellan Fund, *supra* note 67, at 6.
[160] *See* Fidelity Magellan Fund, Statement of Additional Information, at 25-26 (May 28, 2016).
[161] Fidelity Magellan Fund, *supra* note 57, at 19.

These boilerplate disclosures stop short of providing substantive information about the valuation process. They note that the board has put policies and procedures in place, but do not describe their content. The second paragraph, which responds to the accounting rules, adds little additional value:

> Equity securities, including restricted securities, for which observable inputs are not available are valued using alternate valuation approaches, including the market approach and the income approach and are categorized as Level 3 in the hierarchy. The market approach generally consists of using comparable market transactions while the income approach generally consists of using the net present value of estimated future cash flows, adjusted as appropriate for liquidity, credit, market and/or other risk factors.[162]

Like the first paragraph quoted, this disclosure essentially confirms to the public that Magellan is following the applicable rules, but provides no real transparency. The disclosure suggests that startups are valued using Level 3 inputs, but does not describe the inputs or the valuation technique the fund uses. Magellan's disclosures appear to follow the letter of the rule, yet sophisticated investors, let alone average investors, are left with little insight into the actual valuation process.

6. Magellan's Valuations

The final way to assess the risk to investors that remains despite the relevant securities and accounting rules is to consider Magellan's ongoing valuations themselves, which might suggest incompetence, exaggeration, or returns smoothing. To gain insight into whether Magellan's startup valuations may be suspect, this section describes the fund's VC valuations, returns, and risk profile, and compares these attributes to the remainder of its portfolio, the public market, and the venture-capital industry. This section also compares Magellan's valuations to

[162] *Id.* at 20.

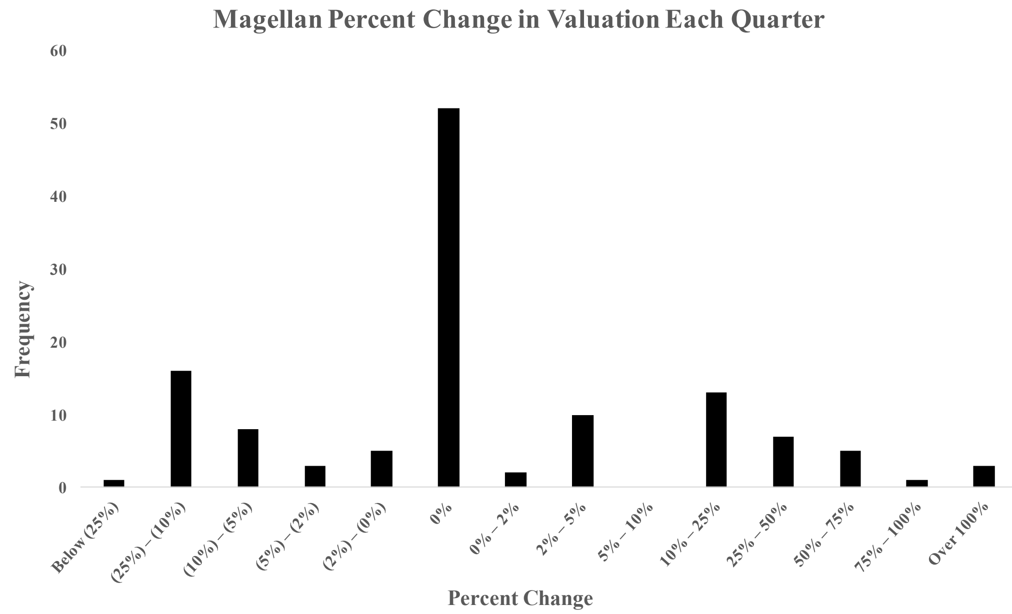
the market values of the same firms on the day of their public offerings. While this collection of data, and the associated comparisons, does not show that Magellan was dishonest or inept, putting the fund's venture investments in context does not extinguish such concerns, and in fact, reinforces them.[163]

i. Magellan's Valuations and Valuation Practices

Between the second quarter of 2012 and the first quarter of 2016, Magellan conducted 126 valuations of its venture investments. This is one valuation each quarter for each type of security held in an emerging firm. In forty-one percent of the valuations, the fund chose to leave the security's estimated value unchanged from the previous quarter. It increased valuations 33% of the time and decreased them 26% of the time. Changes came in all sizes. The fund made 20 changes of less than 5% in either direction. Its smallest change was -.9% and its largest was +141%. While the number of positive as compared to negative adjustments was reasonably similar, the scale of the positive adjustments was much greater than the negative ones. For example, Magellan shows one loss of over 25%, but 16 quarterly gains surpassing that figure. The histogram below illustrates these practices.

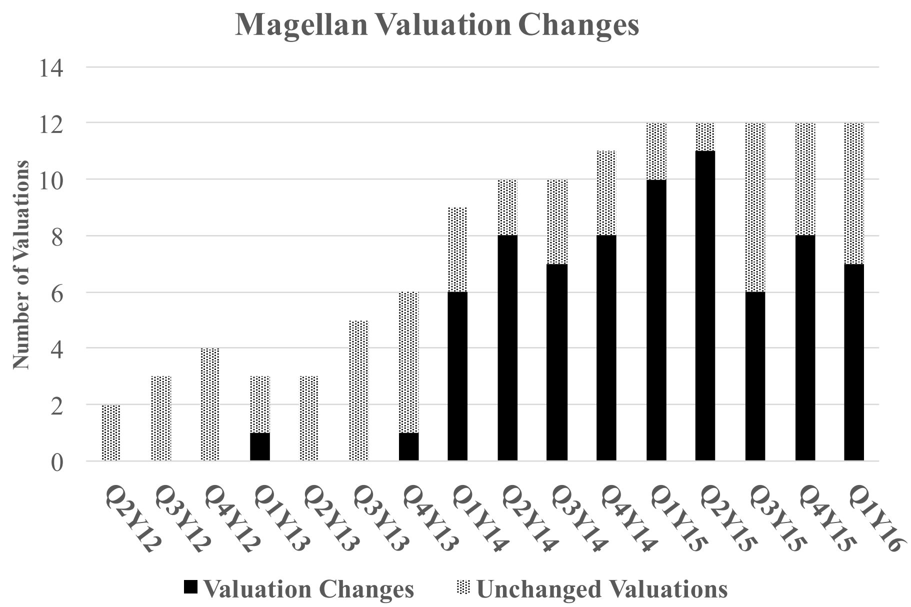
[163] It is beyond the scope of this article to more formally test the hypothesis that Magellan is manipulating its valuations. The data presented herein, though, suggests that the additional data collection and statistical analysis necessary for doing so may be worthwhile.

Figure 2



Magellan's approach to valuation evolved over time. As the bar chart below suggests, the fund was much less likely to change valuations when it first began investing in venture-stage firms. From June 2012 – June 2013, Magellan changed the value of only one holding (out of 15 opportunities). In contrast, from the first quarter of 2015 until the first quarter of 2016, it changed 43 valuations (leaving only 17 unchanged). The chart also shows how Magellan's holdings increased over time.

Figure 3



ii. Risk and Return Data for Magellan's VC Portfolio

Magellan's filings indicate that its venture portfolio has been tremendously successful. Among other things, table 2 shows its initial investment in such firms, its final valuation during the period I reviewed, and the associated annual return. What stands out is just how well Magellan reports to have done. Magellan shows a average annual return of 42%.[164]

Table 2

Fidelity Magellan Fund Startup Returns			
Company	**Initial Investment ($)**	**Final Valuation ($)**	**Yearly Return (%)**
bluebird bio, Inc.[(a)]	1,711,000 (July 23, 2012)	13,489,000 (Sept. 30, 2015)	116
Cloudflare, Inc.	3,502,000 (Nov. 5, 2014)	2,681,000 (Mar. 31, 2016)	(17)

[164] This is a weighted geometric average—a measure that takes into account how much Magellan invests in each security and the timing of returns. *See* IBBOTSON, STOCKS, BONDS, BILLS AND INFLATION: 2016 CLASSIC YEARBOOK 6-2 (2016) (presenting an explanation of geometric means).

DocuSign, Inc.[b]	90,000 (Oct. 21, 2013)	241,000 (Mar. 31, 2016)	50
	99,000 (Mar. 3, 2014)	112,000 (Mar. 31, 2016)	6
	30,000 (Mar. 3, 2014)	34,000 (Mar. 31, 2016)	6
	11,000,000 (June 29, 2012)	35,456,000 (Mar. 31, 2016)	36
	71,000 (Mar. 3, 2014)		
	1,831,000 (Mar. 3, 2014)	2,080,000 (Mar. 31, 2016)	6
Hubspot, Inc.[c]	15,000,000 (Oct. 25, 2012)	35,707,000 (Dec. 31, 2015)	44
KaloBios Pharmaceuticals, Inc.[d]	8,000,000 (May 2, 2012)	4,991,000 (Dec. 31, 2013)	(44)
Malwarebytes Inc.	35,000,000 (Dec. 21, 2015)	35,000,000 (Mar. 31, 2016)	0
Meituan Corp.	10,000,000 (Jan. 26, 2015)	12,214,000 (Mar. 31, 2016)	19
Mobileye N.V.[e]	8,878,000 (Aug. 15, 2013)	46,431,000 (Dec. 31, 2014)	135
Nutanix, Inc.	6,193,000 (Aug. 26, 2014)	6,903,000 (Mar. 31, 2016)	7
Pure Storage Inc.	2,121,000 (Aug. 22, 2013)	4,148,000 (Mar. 31, 2016)	29
Roku, Inc.	11,000,000 (May 7, 2013)	18,570,000 (Mar. 31, 2016)	20
	5,000,000 (Oct. 1, 2014)	5,882,000 (Mar. 31, 2016)	11
Uber Technologies Inc.	15,000,000 (June 6, 2014)	47,159,000 (Mar. 31, 2016)	88
Average Yearly Portfolio Return			42[165]
Standard Deviation			53[166]

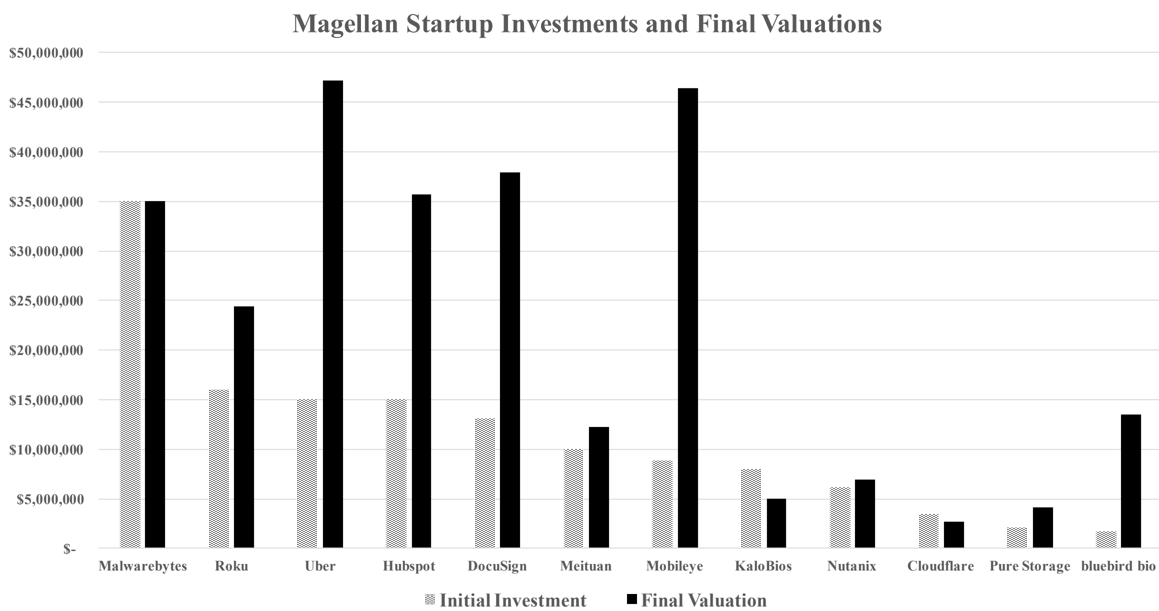
(a) Bluebird bio's final valuation does not include the almost $6 million worth of shares Magellan sold in the third and fourth quarters of 2015; the returns calculation, however, accounts for the sales.
(b) Magellan's June 29, 2012 investment of $11,000,000 and March 3, 2014 investment of $71,000 in DocuSign were combined in Magellan's reporting.
(c) Hubspot's final valuation does not include Magellan's sale of about $8 million worth of shares in the first quarter 2015 and about $2 million worth of shares in the third quarter of that year. Sales proceeds are, however, included in the returns calculation.
(d) Magellan purchased an additional $3 million worth of shares in KaloBios in the the first quarter of 2013. The returns calculation takes the additional purchase into account.

[165] This is the average referenced text accompanying *supra* note 164 rather than a mean of the above annual returns.
[166] This is the standard deviation of the startup portfolio's annual returns.

(e) Mobileye's valuation does not include $1,000 worth of shares that Magellan held until the first quarter 2015. The returns figure, however, takes this holding into account.

The bar chart below shows why Magellan has performed so well. Most of its largest wagers yielded impressive returns. The only two investments resulting in losses involved relatively small stakes.

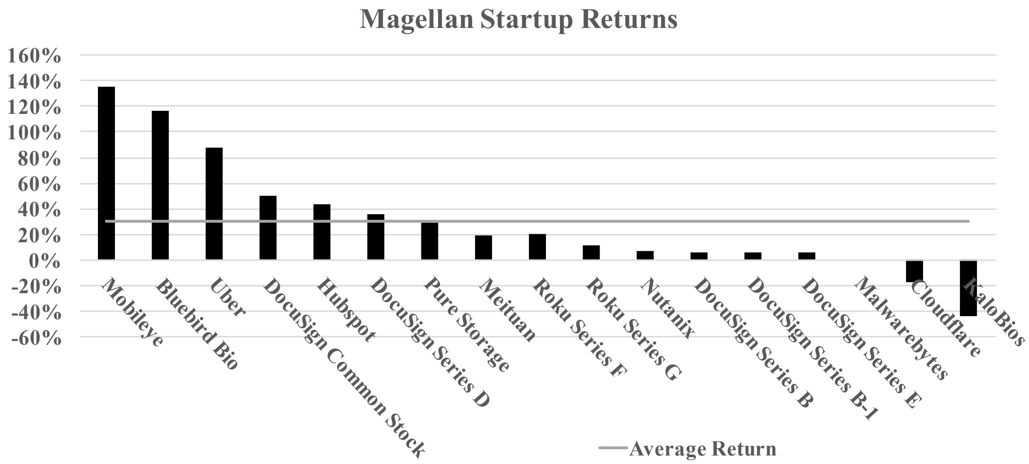
Figure 4[167]



The following figure shows the returns associated with Magellan's valuations.

[167] The figure combines multiple rounds of investments in Roku and DocuSign. Otherwise, it reflects the dollar figures in table 2.

Figure 5



Any discussion of portfolio performance must also account for risk. Standard deviation is the typical measure, which is based on the principle that the wider the dispersion of outcomes (in this case, returns), the greater the risk.[168] A higher standard deviation indicates a wider dispersion. In Magellan's case, the standard deviation of yearly returns was 53%. This figure is based on a small number of observations, but like annual returns data, it nevertheless provides a numerical basis for comparison across different asset classes over the same time period.

ii. Comparative Analysis of Magellan's VC Returns and Risk

Magellan's venture investments significantly outperformed the venture-capital industry, the public market, and the remainder of its portfolio. Table 3 shows how Magellan's performance stacks up against these comparables for the three years where there is complete VC data.

[168] *See* IBBOTSON, *supra* note 164, at 6-3 (2016).

Table 3[169]

Yearly Return Comparisons				
	Magellan Startup Portfolio (%)	Venture Capital Industry (%)	Magellan Total Returns (%)	S&P 500 Returns (%)
June 30, 2012 – June 30, 2013	-6	19.7	20 *(-.06)*	21
June 30, 2013 – June 30, 2014	65	25.9	29 *(+.15)*	25
June 30, 2014 – June 30, 2015	101	20.5	11 *(+.56)*	7
Over 3-Year Period	59	22	20 *(+.22)*	17

From June 2012 to June 2015, Magellan far outpaced the venture-capital industry, earning a 59% return compared to the industry's 22%. Such performance is more remarkable because, as shown in table 1, Magellan has usually invested in later rounds, which should generate lower returns (and lower risks).[170] Also, venture-capital returns follow a power-law distribution. A few funds earn outsized returns while the remainder falter.[171] That Magellan

[169] Venture capital returns are internal rates of return ("IRRs") based on data from Preqin. *See* PREQIN, LTD., THE Q1 2016 PREQIN QUARTERLY UPDATE 11 (2016), *available at* https://www.preqin.com/docs/quarterly/pe/Preqin-Quarterly-Private-Equity-Update-Q1-2016.pdf; William Alden, *Venture Capital Outpaces Buyouts in Investment Returns*, Jan. 21, 2015 (citing Preqin data). IRR calculations in the VC industry typically include interim valuations and are not solely based on limited partner cash flows. *See* JOE STEER & COLIN ELLIS, ARE UK VENTURE CAPITAL AND PRIVATE EQUITY VALUATIONS OVER-OPTIMISTIC*?* 4 (2011). The parentheses in the Magellan total returns column are estimates of the startup portfolio's contribution to the total return each period. Total returns and S&P 500 returns are based on data from Morningstar. *See* MORNINGSTAR, *Fidelity Magellan*, http://beta.morningstar.com/funds/XNAS/FMAGX/quote.html (last visited, Dec 21., 2016).

[170] *See* Cochrane, *supra* note 129, at 5.

[171] DIANE MULCAHY ET AL., WE HAVE MET THE ENEMY … AND HE IS US 21 (2012), *available at* http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2012/05/we_have_met_the_enemy_and_he_is_us.pdf.Kauffman.

finds itself on the right side of this equation is surprising,[172] given that newcomers and non-VC funds that dabble in private equity tend to do poorly.[173]

Also notable is that the strong venture-capital returns depicted in this table belie a long history of lackluster performance in the industry. While funds that began in 2005 have a median return of 14%, those that began in 2005 show returns of only 3%.[174] A Kauffman Foundation study from 2012 concluded, based on returns data, that venture funds "haven't beaten the public market for most of the past decade."[175] Magellan is thus a standout in the industry at a time when the industry is dong particularly well.

Magellan's venture returns also far exceed the stock market as a whole and Magellan's public investments. As shown in the above table, Magellan's 59% return in the three years from June 2012 through June 2015 dwarfs the 17% return on the S&P 500 index and 20% return on the rest of the fund's portfolio. Moreover, as noted above, from the June 2012 until March 2016, Magellan earned 42%. The S&P 500 returned about 14%, and the remainder of Magellan's portfolio returned about 14.7% over the same period.

The returns on Magellan's startup investments have played a small, but noticeable role in the fund's overall performance. As the table indicates, the venture portfolio caused the overall return to fall 6 basis points from June 2012 to June 2013 and to rise 15 basis points and 56 basis

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[172] Based on Cambridge Associate's historical data, Magellan's returns would likely place it in the top quartile. In the period from 1981 – 2014 (34 years), this group had annual returns of over 30% only 8 times and over 40% only 4 times. CAMBRIDGE ASSOCIATES, U.S. VENTURE CAPITAL INDEX AND SELECTED BENCHMARK STATISTICS 8 (2016).

[173] University endowments are the exception. *See* JOSH LERNER, PRIVATE EQUITY RETURNS: MYTH AND REALITY 21-28, *available at* http://www.law.harvard.edu/programs/lwp/Session%20III%20-%20Lerner%20FINAL.pdf.

[174] Alden, *supra* note 169.

[175] MULCAHY ET AL., *supra* note 171, at 6.

points in the following two years.[176] The above table does not show the difference that the venture investments made to quarterly returns. As with annual returns, the change was usually a matter of basis points, but one quarter, the fund had a 614% return on its startup portfolio, and that quarter the venture portfolio increased the aggregate return by more than 3% (from 7.8% to 11%).[177]

Magellan's high venture returns have been accompanied by the aforementioned 53% standard deviation, which implies a high level of risk. The S&P 500 had a standard deviation of only 9% over the three years included in the above table. Historically, the standard deviation is 20% for large-cap stocks and 32% for small caps.[178]

Perhaps more surprising, the standard deviation of Magellan's returns also exceed those of VC funds, even though it focuses primarily on later-stage startups, which should be more stable.[179] For the three years included in the chart above, the annual standard deviation in VC returns is 3.7%. This was a relatively calm time for the industry, which averages a standard deviation of 11.7%.[180]

These numerical comparisons, however, overstate the riskiness of Magellan's investments. Though less tidy, a better way to look at risk in this context is to focus on the frequency and depth of losses. This perspective causes Magellan's risk to disappear. Only two of the fund's investments have failed to generate a positive return, and only one—KaloBios—is severely underwater.

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[176] The small overall affect despite the large VC returns owes to the relatively small portion of the portfolio allocated to startups. *See infra* Part III.A.2.
[177] The 614% figure is an annualized return.
[178] *See* IBBOTSON, *supra* note 164, at 2-6 exhibit 2.3.
[179] *See* Cochrane, *supra* note 129, at 5.
[180] This is based on the variation in the annual VC returns reported by Cambridge Associates. *See* CAMBRIDGE ASSOCIATES, *supra* note 172, at 6.

This is in contrast to venture capital as a whole, where three out of four investments fail to return investor capital.[181] Magellan's focus on more mature firms likely explains part of its success in avoiding steep losses, but the increased stability of such firms should be accompanied by decreased returns—which has not been the case for Magellan.[182]

Magellan appears to have done something that has long eluded industry veterans. In its first foray into venture capital, it has invested (essentially) only in winners. While not all of its investments have been homeruns, they have almost uniformly yielded positive returns. The spread of returns implies riskiness, but the risk that matters is largely absent.

When further refined, the data continues to present this picture of success. The above analysis of Magellan's total returns from its VC portfolio includes returns derived from after startups have gone public. While a complete picture of Magellan's VC portfolio returns is a useful yardstick, since the valuations for publicly traded firms and the post-IPO returns that stem therefrom are based on market prices, excluding this portion of the fund's VC returns from the data presents a more precise picture of Magellan's pre-IPO valuation practices.

When the public valuations are excluded, the average annual return drops from 42% to 30%. The new figure, while somewhat less impressive, still compares very favorably to the VC industry (18.2%),[183] to the public market (14%), and to the remainder of Magellan's portfolio (14.7%). Reduced risk accompanies the reduced returns. The standard deviation drops to 31% and the fund's biggest loss disappears. Its investment in KaloBios only showed signs of trouble

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[181] Deborah Gage, *The Venture Capital Secret: 3 out of 4 Startups Fail*, WALL ST. J., Sept. 20, 2012.
[182] *See* Cochrane, *supra* note 129, at 5.
[183] This is the return for the VC industry for the three years ending December 2015. PREQIN, LTD., THE Q1 2016 PREQIN QUARTERLY UPDATE 11 (2016). Its performance would place Magellan in the top quartile of VC funds in about 70% of years. *See supra* note 172.

after it went public. The reason for the overall reduced returns and risk despite KaloBios's struggles is that Magellan's investments in bluebird bio (which it held for more than 2 years after its IPO) and Mobileye (which it held for a couple of quarters) skyrocketed after going public.

iii. Comparative Analysis of Firm-Level Valuations—Before and After the IPO

Comparing the performance and risk of Magellan's VC portfolio to those of alternative investments is one way to assess the fund's valuations. Another approach is to compare the fund's private valuations for firms that went public to the IPO prices for those firms or, better yet, to the prices for those firms after the first day of trading. The latter would be more telling because it reflects market prices rather than the price paid by the IPO syndicate, which typically reflects a discount.[184] A good match between Magellan's price and the trading price would seem to indicate that Magellan is appropriately tracking the value of its investments.[185] Table 4 shows this information.

[184] *See* Steven Davidoff Solomon, *Why I.P.O.'s Get Underpriced* (May 27, 2011, 10:48AM), N.Y. TIMES DEALBOOK, http://dealbook.nytimes.com/2011/05/27/why-i-p-o-s-get-underpriced/?_r=0.
[185] Venture capitalists typically price their preferred shares as if they were common stock, ignoring the value of the downside protection. Robert Bartlett III, *A Founders Guide to Unicorn Creation* 3 (forthcoming *in* RESEARCH HANDBOOK ON MERGERS AND ACQUISITIONS (Steven Davidoff-Solomon & Clair A. Hill eds.)). When it is clear that a company is going public, however, the distinction evaporates because protection from downside risk is irrelevant. Private and public valuations should, therefore, largely align (although a liquidity discount to reflect any lockup period would be defensible).

Table 4[186]

Initial Public Offerings Data				
Company	**Highest Internal Valuation ($)**	**Final Internal Valuation ($)**	**IPO Price ($)**	**End of First Day of Trading**
bluebird bio, Inc.	.78 (March 31, 2013)	.78 (14.80) (March 31, 2013 / May 28, 2013)	17 (June 18, 2013)	26.91 (June 19, 2013)
Hubspot, Inc.	10.17 (Mar. 31, 2014)	7.50 (22.50) (Sept. 30, 2014 / Nov. 20, 2014)	25 (Oct. 9, 2014)	30.10 (Oct. 9, 2014)
KaloBios Pharmaceuticals, Inc.	3.40 (June 30, 2012 – Dec. 31, 2012)	3.40 (12.11) (Dec. 31, 2012 / Feb. 28, 2012)	8 (Jan. 31, 2013)	7.95 (Jan 31, 2013)
Mobileye N.V.	34.90 (Sept. 30, 2013 – June 30, 2014)	34.90 (6.98) (June 30, 2014 / Aug. 29, 2014)	25 (July 31, 2014)	37 (Aug. 1, 2014)
Pure Storage Inc.	18.67 (June 30, 2015)	15.30 (Sept. 30, 2015 / Nov. 30, 2015)	17 (Oct. 6, 2015)	16.01 (Oct. 7, 2015)

What stands out is how far off Magellan's valuations were from the market values of the same firms at the end of the first day of trading. Magellan overvalued KaloBios by 34%. The fund's valuation was low, but reasonably close for Pure Storage (5% off), and far too low for Hubspot (34% off), Mobileye (430% off) and bluebird bio (82% off).

186 The first dates listed in the "Final Internal Valuation" column are the quarter ending dates for the quarterly reports reflecting the noted valuation. The dates after the slashes are the actual filing dates for those reports. The prices in parentheses in that column represent what the fund's reported price equates to accounting for stock splits at or around the time of the IPO and for the rate at which the fund's holdings covert into common stock. For example, Magellan's valuation for bluebird bio for the first quarter of 2013, which ended March 31, 2013, was $.78. Magellan filed the quarterly report listing this valuation on May 28, 2013. Bluebird bio conducted a one-for 18.967 reverse stock split shortly before its IPO and Magellan's shares were eligible to convert on a one-to-one basis. Taking this into account, the $.78 per share valuation, as of March 2013, equates to a $14.80 valuation at the time of the IPO.

These discrepancies are difficult to explain. SEC rules provide funds with 60 or more days to file their quarterly reports[187]—and Magellan takes full advantage. As Table 4 shows, in four out of five cases, this meant that Magellan filed its report listing its valuation estimate for the firm *after* its IPO. In the other case, bluebird bio, Magellan filed about three weeks prior. Thus, with the exception of bluebird bio, Magellan had actual price data to inform its valuations. So informed, the fund's valuations for the quarter ending prior to the IPO should closely align with the subsequent, but closely timed, market prices.

Looking more closely at the data, in two cases, Mobileye and KaloBios, Magellan never changed its quarterly valuations prior to the IPOs. Hubspot's and Pure Storage's valuations were lowered in the months prior to the public offering (which might suggest an adjustment in anticipation of the event and the value clarity it brings). As for bluebird bio, Magellan only held the firm for 3 quarters prior to its IPO and marked up the stock by 56% in the quarter prior to the offering.

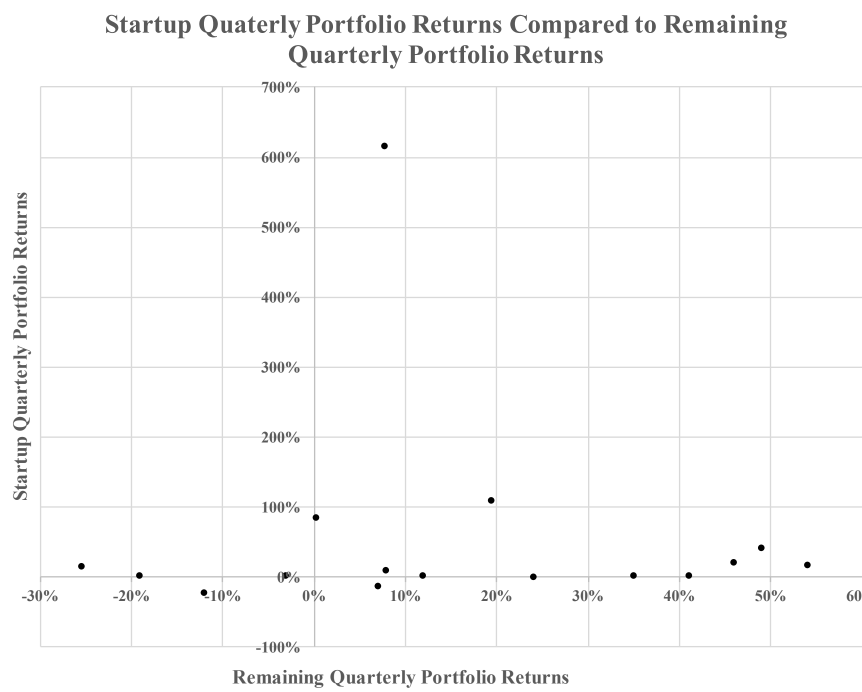
A valuation process that, as law requires, takes into account all available information should, it would seem, hue closely to proximate market data. Magellan's valuations for these 5 firms prior to their IPOs show no discernable pattern that would help to explain why that was not the case.

[187] The first and third quarter reports are filed on Form N-Q, which have a 60-day deadline. *See* Form N-Q, *supra* note 56, at 1. Form N-CSRs are filed for the alternate quarters. These must be filed in 70 days. *See* 17 § CFR 270.30e-1 (2016) (requiring semi-annual reports within 60 days of each half-year period); Form N-CSR, *supra* note 56, 1 (requiring filing not later than 10 days after delivery of a semiannual report).

iv. Returns Smoothing

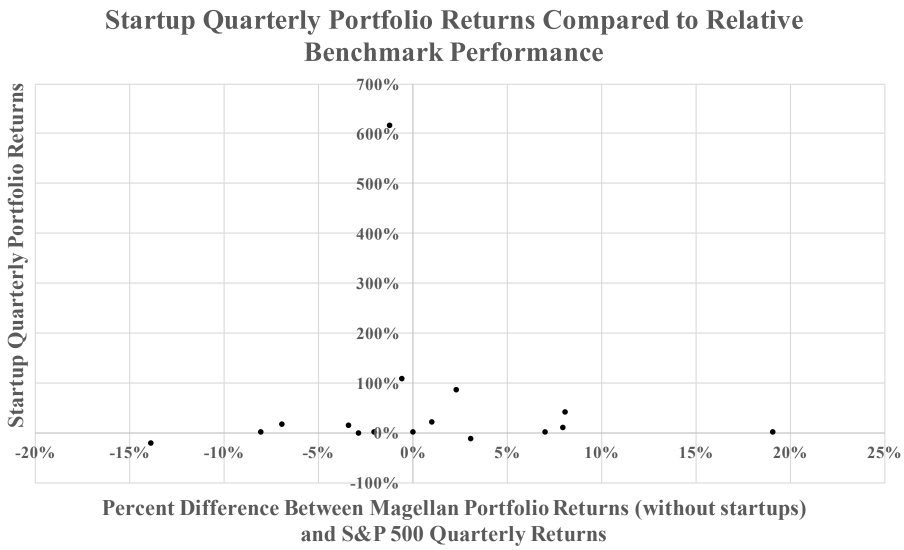
As noted above, rather than inflate valuations so as to exaggerate returns, funds could smooth returns by shifting the timing of when they reflect gains and losses. If a fund is engaged in within-portfolio smoothing, it would show up as an inverse correlation between the fund's return on its startup portfolio and the return on its remaining investments. If a fund is smoothing against a benchmark (the S&P 500 in Magellan's case), this would show up as an inverse correlation between the performance of Magellan's startup investments and the remaining portion of the fund's performance relative to its benchmark. As illustrated in the scatterplots below, however, the relevant figures showed little correlation.[188]

Figure 6



[188] The correlation coefficient for Figure 6 is -.05 and for Figure 7 is -.03.

Figure 7



One reason smoothing might not appear is that, when Fidelity invests in a startup, it frequently spreads its holdings across more than one fund. Thus, while Fidelity might not be smoothing with respect to Magellan, it might be doing so with respect to the fund family as a whole—timing the valuation of gains and losses to the benefit of whichever fund in the family is most in need of support—and such behavior would not reveal itself in the above analysis.

v. Interpretation of Magellan's Valuations

The data above does not provide a clear answer as to whether Magellan is inappropriately valuing its startups. There does not appear to be evidence of smoothing and the pricing of firms that went public shows no pattern of overvaluation. The comparison of private valuations to IPO prices does, however, call the rigor of the valuation process into doubt, and the comparison of VC portfolio returns to other investments supports concerns about misconduct.

Upwardly skewed valuations are one of only a few explanations for the fund's success in the VC arena. And the alternative explanations, while plausible, are not overly compelling. It would be tempting to dismiss Magellan's success as the byproduct of a startup bubble, but this would be too easy. While many have voiced concerns that startups are overvalued,[189] to attribute Magellan's performance to a bubble requires an explanation for why Magellan is benefiting more from it than others in the VC industry.[190] No convincing explanations present themselves. It is possible that Magellan is more skillful, but this seems improbable given the fund's inexperience. This leaves luck. While anything is possible over a relatively short period of time, ascribing Magellan's performance to good fortune is not a particularly satisfactory explanation either.

Surprisingly strong relative performance does not prove manipulation or disprove other explanations, but it is notable nonetheless. The valuation data could have shown that the VC investments were an unrelenting drag on returns. While this would not have disproven manipulation, it would have run counter to the theory that mutual funds are using such investments and their discretion over valuations as a way to boost their returns in an absolute sense and in comparison to index funds. Such a finding would also have eased regulatory concerns. Even if funds are manipulating valuations to show results that are less bad than they really are, this is part of a self-defeating investment strategy and therefore probably a short-term problem. Instead, the finding of superior performance lends credence to overvaluation concerns.

[189] *See, e.g.,* Steven Davidoff Solomon, *Expect Some Unicorns to Lose Their Horns, and It Won't Be Pretty*, N.Y. TIMES DEALBOOK (Jan 19, 2016), http://www.nytimes.com/2016/01/20/business/dealbook/expect-some-unicorns-to-lose-their-horns-and-it-wont-be-pretty.html?_r=0.

[190] If there is a bubble, mutual funds might be part of the reason for why it exists. Their presence may exert upward pressure on prices because they have vast resources and their inexperience and discretion over subsequent valuations may lead to price insensitivity.

IV. POLICY IMPLICATIONS

This article proves, as much as a case study can, that mutual fund VC holdings and valuation processes are not disclosed in a useful manner. It also makes the theoretical case for skepticism regarding the startup valuations mutual funds announce each quarter. To assess the theoretical case, the article reviews Magellan's valuations and measures them against several benchmarks. While Magellan's valuations and the associated returns are comparatively and surprisingly high, there is insufficient evidence to pin such success on misconduct. Nevertheless, the above combination of theory and evidence—along with the mutual fund industry's expanding taste for VC investments—provides enough reason for concern to begin a conversation about reform.[191]

While disclosure is almost always the recommended cure for securities-law concerns, that alone would likely be insufficient in this instance. Many, even most, investors likely pay scant attention to mandated fund disclosures or even the content of fund websites.[192] While this does not mean the pursuit of improved disclosure is in vain, it does suggest that substantive reforms to how mutual funds are permitted to do business should be the centerpiece and that any new disclosure recommendations should be calibrated to the reality of low investor engagement.

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[191] There is a regulatory tradeoff with respect to empirical evidence of misconduct. The more evidence one collects, the better the case for regulation, but the more harm that has already been done. While the case here is mostly theoretical, since the startup investing trend remains nascent, this may present an opportunity for regulators to get ahead of the industry.

[192] *See supra* note 18.

A. Reforms to the Valuation Process and Related Disclosures

Currently, securities rules require funds to value their portfolios daily, and the accounting requirements as to methodology allow funds to do so through any reasonable means.[193] Because funds are required to constantly value their securities, this is a pure "mark-to-market" accounting structure, and because the process of marking to market is what creates the opportunity for manipulation, a modified cost-based accounting structure would mitigate such concerns.

Funds could be required to hold these investments at their acquisition cost, unless the fund believes a valuation change is warranted based on publicly available information. For instance, startups often announce their implicit valuation based on new rounds of financing.[194] When this occurs, funds could be required to update their valuations accordingly. Management shakeups, acquisitions, and even industry news could warrant changes.

As a complement to the new valuation rules, funds could be required to disclose each quarter what public information caused the change. This is a rather mild form of intervention because it leaves pricing in the discretion of the fund and anticipates market-based revisions.[195]

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[193] *See supra* Part III.C.5.

[194] *See, e.g.,* Press Release, Shazam, Shazam Announces $30 Million Investment at $1 Billion Valuation (Jan 20. 2015), http://news.shazam.com/pressreleases/shazam-announces-30-million-investment-at-1-billion-valuation-1107744.

[195] Rules could also require disclosure of whether the fund is using a third-party pricing service. The value of these services can be questioned: they may also struggle to price VC investments, and they may be pressured to value such investments in conformity with management's wishes. Nevertheless, they have been shown to reduce smoothing in the hedge-fund context. *See* Gavin Cassar & Joseph Gerakos, *Hedge Funds: Pricing Controls and the Smoothing of Self-Reported Returns*, 24 REV. FIN. STUDIES 1698, 1700 (2011). While not necessarily probative of what would happen in the mutual-fund arena, evidence from Sarbanes-Oxley shows that disclosure of whether a publicly traded firm adopts a shareholder-friendly practice leads to an increased adoption of that practice. *See* James S. Linck et al., *The Effects and Unintended Consequences of the Sarbanes-Oxley Act on the Supply and Demand for Directors*, 22 REV. FIN. STUDIES 3387, 3292, 3310-11 (2009) (showing an increase in the number of financial experts on corporate boards after Sarbanes-Oxley required disclosure of whether companies had such individuals on their audit committees).

But the rationale for revised valuations would be subject to public scrutiny, which would incentivize funds to provide more conservative (and more careful) estimates—ones they could publicly defend if called upon. Mutual-fund investors would be unlikely to notice these disclosures, but the audience in this case would be the SEC, class-action lawyers, and the media. Indeed, the SEC and major newspapers have already begun to take note of mutual-fund valuation practices.[196]

Funds would likely argue that such disclosures pose competitive concerns. As the opaque nature of their disclosures suggest, funds like to leave the public in the dark as to their practices. Similarly, when reporters have asked funds about valuation techniques, they are often met with silence or platitudes.[197] The disclosures proposed here, however, would not compromise fund valuation models; only the publicly available information on which changes are based would be open for review Such complaints are, therefore, unconvincing.

This proposal is the least intrusive from an array of options. The most extreme alternative would be to prohibit mutual funds from making VC investments. Instead, only ETFs and closed end funds would be allowed to do so. While similar to mutual funds, the shares for these pooled investments are publicly traded, which means any disconnect between fund valuations and market value would be accounted for in the price of the shares.[198] Like in the

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[196] *See* Kristen Grind, *Regulators Look into Mutual Funds' Procedures for Valuing Startups,* WALL ST. J., Nov. 17, 2015, *available at* http://www.wsj.com/amp/articles/regulators-look-into-mutual-funds-procedures-for-valuing-startups-1447796553; McLaughlin & Somerville, *supra* note 5; *see, e.g.,* Grind, *supra* note 196; Sorkin, *supra* note 1.

[197] *See, e.g.,* Chapman, *supra* note 112; Grind, *supra* note 196; *The Rise and Fall of the Unicorns*, ECONOMIST, Nov. 28., 2015, *available at* http://www.economist.com/news/business/21679202-some-private-technology-firms-are-having-trouble-justifying-their-lofty-valuations-rise-and.

[198] *See How to Invest in a Closed-End Fund*, WALL ST. J., http://guides.wsj.com/personal-finance/investing/how-to-invest-in-a-closed-end-fund/ (last visited Oct. 12, 2016).

public markets, unsophisticated shareholders would be protected by the market price.[199] The problem is that this would cut many ordinary investors out from startup investing. ETFs and closed-end funds do not have the same footprint as mutual funds, and they are not as common in 401(k) plans.[200] Without clear evidence of misconduct, it is better to mitigate the risk of abuse, than deprive people of the opportunity to invest in young companies.

One could allow mutual-fund participation, but remove the risk of misconduct, by taking valuation discretion away from the funds. Instead, they could be required to hold the investments at cost. In contrast to the modified cost-based proposal presented above, with this option, the market value would only enter the NAV calculation if there is a liquidity event, such as the sale of shares in an emerging firm. The problem, and the reason I propose milder intervention, is that this change would open an arbitrage opportunity for sophisticated investors. Suppose a company enters a later funding round at an increased valuation. After the round, the fund's recorded NAV would be artificially low. Arbitrageurs could purchase shares in the fund in anticipation of when the value would actually be realized. The same is true on the flip side. A requirement to hold the firms at cost would mean that funds would carry inflated valuations for firms in cases where there has been bad news. Arbitrageurs could sell fund shares only to repurchase them if the firm eventually goes bankrupt.

The underlying problem is that a purely cost-based system creates a predictable divergence between announced values and market values. In a typical public market, the actions of sophisticated traders help retail investors as their conduct brings prices in line with market values. But in the mutual fund context, the NAV stays the same. The profits of the arbitragers

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[199] *See* Jeff Schwartz, *The Law and Economics of Scaled Equity Market Regulation*, 39 J. CORP. L. 347, 362 (2014).
[200] *See How to Invest in a Closed-End Fund, supra* note 198.

come at the expense of long-term, presumably retail, investors.[201] Under the modified cost-based approach I propose, however, while a difference between market price and reported price difference might exist in theory, it would be impossible to exploit because the information on which to do so would not be publicly available.[202]

A similar alternative would be to require updating, when and only when, there are certain outside events (e.g., a new funding round, an acquisition, bankruptcy). The ability to alter valuations subject to these constraints would allow greater flexibility than the purely cost-based alternative. While this approach would reduce the arbitrage problem, it would not eliminate it. Sophisticated investors could buy or sell based on whatever events are not included on the list.

Additional research may indicate that more restrictive measures may be appropriate, but at this point, where research is still thin, incremental change seems most prudent. The suggested alteration to the valuation process, and the accompanying disclosure rule, would provide a great deal more investor protection than today's regime without significant upheaval.[203]

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[201] This would be a form of stale-price arbitrage. For a discussion of the topic and the harm to shareholders it causes, see generally Eric Zitzewitz, *Who Cares About Shareholders? Arbitrage-Proofing Mutual Funds*, 19 J.L. ECON. & ORG. 245 (2003).

[202] Corporate insiders would be in position to profit based on price inaccuracy, but trading based on material nonpublic information would constitute insider trading. *See, e.g.,* Sec. & Exch. Comm'n, Litigation Release No. 21383 (Jan 20. 2010), https://www.sec.gov/litigation/litreleases/2010/lr21383.htm?_ga=1.93175768.479061596.1482959610 (describing SEC action for insider trading against mutual-fund manager for trading based on inside information about the mispricing of certain fund assets).

[203] Hedge funds face a similar valuation concern in connection with the illiquid aspects of their portfolios. To address the risk that some investors may cash out at inappropriate valuations, some funds have adopted so-called "side pockets." Illiquid securities are kept in the side pocket and proceeds from such securities are only distributed to shareholders after a liquidity event. The practice has is controversial. *See* Gregory Zuckerman & Scott Patterson, *Side-Pocket Accounts of Hedge Funds Studied*, WALL ST. J., Aug. 4, 2006, *available at* http://www.wsj.com/articles/SB115465505123626547. While such an arrangement might be feasible for mutual funds, it would run afoul of the bedrock idea that mutual-fund shares are quickly and fully redeemable and it introduces a degree of complexity that might elude shareholders.

B. Startup Portfolio Disclosure

A limitation to the changes discussed thus far is that they would not address the investor notice problem. While the SEC and sophisticated investors would be more aware of fund valuation practices, the presence of venture-stage firms in fund portfolios, and the risks they pose, would still be unknown to most investors. As noted above, this is a difficult problem to fix because investors are notoriously uninterested in fund disclosures.[204] With this in mind, rules should mandate disclosures across an array of platforms, including both fund advertisements and SEC forms, so as to reach as many investors as possible, and require that such disclosures be simple and clear enough so that those investors that come across them understand that the fund is investing in startups and the risks involved. This would provide actual notice to some investors and constructive notice to all.[205]

Such an approach starts with a rule that instructs funds with venture investments to include something like the following disclaimer whenever they present their fund strategy, including in its website and prospectus: "This fund contains investments in startup companies. Such investments pose unique risks, which are discussed in further detail in the 'Startup Portfolio' section of our Statement of Additional Information."

This section would then describe such risks. It would explain that such firms are illiquid and that this may make it difficult for funds to redeem mutual-fund shares on demand. Funds could appropriately tailor this discussion according to the portion of the fund's portfolio so

[204] *See supra* note 18.

[205] Constructive notice, while less than ideal, would be an improvement on the status quo where disclosures provide very little notice and investors are exposed to amplified risks because of the flexible valuation rules.

invested. Funds would also be required to explain the valuation challenges with startups. In particular, funds should indicate that valuing startups is inherently subjective and that exaggerated valuations lead to excess compensation for management, which means that the interests of the fund's managers do not align with that of its shareholders.

The fund would then explain the process it uses to value startups and mitigate concerns regarding its discretion and potential bias. In this part, the fund would describe what it *does* rather than what it *may* do. For example, media reports suggest that funds use market behavior of similar public companies to estimate emerging firm values.[206] If this is the case, then firms should acknowledge it. One problem with today's disclosures is that fund's provide a broad discussion of their process for valuing assets without a readily identifiable market value. Because they apply this process to a range of assets, the discussion is so general as to be meaningless. This proposal would require that firms specifically discuss what they do to fair value startups. To accommodate competitive concerns, funds would not be required to disclose the details of their valuation models. In the example above, for instance, a fund using public valuations to inform private ones would not be required to list which public company or companies it is using as a match for which startup.

The SAI would also inform investors that the current list of holdings, including valuations, can be found in the fund's quarterly reports. In addition, it would explain that the fund, as required by law, updates valuations when, and only when, publicly available information warrants doing so, and that it reports the basis of such changes each quarter. In the quarterly reports, startups should be specially marked as such with a footnote indicating that investors can learn more about such investments and their risks in the fund's SAI. This specific

[206] *See, e.g.,* Chapman, *supra* note 112.

and clear disclosure regime would offer far more insight than the generalized and superficial information found in Magellan's reports today.

Even though the SEC has expressed concern about the length and complexity of fund disclosures, venture investing warrants special treatment. As discussed throughout this article, such investments are uniquely illiquid and difficult to value and are quite different than the typical equity mutual-fund holdings or even holdings in debt and other illiquid securities, which raise similar concerns. Though the substantive reforms to the valuation process discussed above would reduce the fund's discretion and therefore do much to mitigate the risk of manipulation, it would not eliminate this concern or the need for transparency with respect to funds' VC portfolios.

V. Conclusion

A case study of Fidelity Magellan Fund's compliance effort and investing practices suggests that the current regulatory structure does not adequately address the investor-protection concerns raised by mutual-fund investments in startups. The study suggests that most fund investors are unaware that they have indirectly invested in these companies, which is particularly worrisome because the valuations funds report for these firms, and which form the basis of investor transactions, may be biased and inaccurate. A review of Magellan's valuations, and the performance related thereto, lend preliminary support to these concerns. To respond to the investor-protection gaps, I propose greater limitations on how funds may value their investments in startups and enhanced disclosure requirements with respect to the valuation process, the presence of such firms in fund portfolios, and the risks that investing in startups entails.