PUFFERY ON THE MARKET: A BEHAVIORAL ECONOMIC ANALYSIS OF THE PUFFERY DEFENSE IN THE SECURITIES ARENA

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Puffery statements in the securities arena are statements that are so optimistic, general, broad, or vague that they are considered immaterial as a matter of law and, thus, shielded from liability. The courts' underlying assumption is that investors disregard puffery statements and do not rely on them when making investment decisions.

Following recent scholarly criticism of the puffery defense, this Article aims to test whether investors indeed disregard puffery statements when making investment decisions.

Part I of the Article analyzes 233 federal court decisions between 2009 and 2013. The analysis reveals that despite the rising popularity of the puffery defense, the courts' decisions lack concrete reasoning In addition, the courts have not adequately justified their presumption that investors do not rely on puffery statements.

Part II describes the limited research about the effect of puffery statements on consumers and investors. In an attempt to fill the gap in the literature, I conducted an experiment that tests whether puffery statements affect investors' decisions.

Parts III and IV describe and analyze the results of the experiment. The main finding is that the courts' assumption that puffery statements do not affect investment decisions is correct in most instances. These results should soften the criticism that scholars have raised with respect to the courts' assumption. At the same time, the results call for a cautious analysis of strong puffery statements, such as factual statements, as well as cautious implementation of policy based on behavioral economics.

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* Dr. Adi Osovksy, Associate at Sullivan & Worcester, LLP. I am grateful to Howell E. Jackson and Brigitte Madrian for their guidance and valuable comments. I would also like to thank Oren Bar-Gill, Netta Barak Corren, Lucian A. Bebchuk, Howard Berkenblit, Jerami J. Davidson, Amir Grinstein, Kobi Kastiel, Shay N. Lavie, Pinhas Rubin, Roy Shapira, and the participants of the S.J.D. Colloquium and the Corporate Governance Fellows Group at Harvard Law School for helpful conversations and comments. Most significantly, I would like to thank Jocob J. Elsner for his assistance and support. This work was generously supported by a summer grant from Harvard Law School and by a Qualtrics Behavioral Research Grant.

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Introduction

Imagine that you are about to invest in several companies in different industries. The Chief Executive Officer (CEO) of one of the companies—a technology company that aims to convert plastic waste into oil—mentions that the company had communicated with numerous interested investors, including Warren Buffet, Bill Gates, Dow Chemical, Morgan Stanley, and Goldman Sachs. The CEO also mentions that former President Bill Clinton agreed to affiliate himself with the company, possibly as a member of its board of directors. Would this information increase the likelihood of your investment in this technology company?

Imagine now that you chose to invest in this technology company. You later discover that the information the CEO provided about the other investors' and former President Bill Clinton's interest was false. How would you assess your chances of prevailing in a lawsuit against the company based on the claim that these statements were misleading?

According to the United States District Court for the Eastern District of Virginia, in *Carlucci v. Han*,[1] your chances of succeeding in this claim are slim to none. The reason is that the CEO's statements were puffery—statements that are optimistic, general, broad, or vague—and as such they "do not demonstrate falsity."[2]

Carlucci v. Han is just one example of many recent cases in which the federal courts excluded puffery statements from legal liability. The courts'

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[1] Carlucci v. Han, 886 F. Supp. 2d 497 (E.D.Va. 2012).
[2] *Id*. at 522.

main justification for the puffery defense is that reasonable investors do not rely on puffery statements. But how exactly have the courts defined puffery? Do investors indeed disregard puffery statements when making investment decisions? These are the main questions this Article aims to answer.

Part I of the Article attempts to define the puffery defense, first generally and then specifically in the securities area. Part II analyzes 233 federal courts cases in the five-year period between 2009 and 2013. The analysis reveals that despite the rising popularity and acceptance of the puffery defense, the courts lack concrete reasoning on this point. Although the courts' main justification for the puffery defense is that investors do not rely on puffery statements, the courts have not elaborated on this crucial presumption and its validity. Indeed, a central criticism of the puffery defense is that puffery statements do in fact influence investors and hence the statements should not be deemed immaterial as a matter of law.[3] This criticism is based on research in behavioral economics showing that language and framing affect people's decision-making.[4]

I delve into the behavioral economics research in Part III, where I first discuss general studies that demonstrate the power of subtle signals on people's decision-making. The existing research presents some convincing evidence that puffed claims may affect consumers' beliefs. There is also limited literature that addresses the puffery defense in securities cases.

The main section in this Part describes an experiment that I conducted in order to test whether puffery statements affect investors' decisions. Although scholars have raised this specific question before,[5] no previous study has attempted to answer it. I designed a web-based survey that showed certain information about four different companies (A, B, C, and D), and each respondent was asked to allocate a hypothetical investment sum of $10,000 among these companies. These corporate disclosures were based on four different federal court cases.

The participants in the experiment were randomly allocated into one of four groups, each consisting of approximately 110 investors. The groups varied in the type of information that was given regarding the investment options: Group 1 was exposed to four different corporate disclosures that all included puffery statements (a positive control group); Group 2 was exposed to four different corporate disclosures that did not include puffery statements, but instead included neutral statements (a neutral control group); and Groups 3 and 4 were each exposed to a mix of corporate disclosures from Groups 1 and 2: two with puffery statements and two without puffery statements.

By first comparing the two control groups and then comparing Groups 3 and 4 where respondents were exposed to the mix of corporate disclosures

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[3] *See infra* note 107 and accompanying text.
[4] *See infra* Part IV.A.
[5] *See, e.g.*, *infra* note 185 and accompanying text.

with and without puffery, the experiment tested whether respondents favored investment in companies that used puffery statements over companies that did not use puffery statements.

Contrary to legal scholars' criticism, the experiment corroborated the courts' assumption that puffery statements do not affect investment decisions in most instances. The experiment showed that investors ignore puffery statements up to a certain degree. However, when a puffery statement is strong, as in the example of the technology company's statements mentioned above, the statemenet, which sounds more like a statement of fact than a mere belief or opinion, may affect investors' decision-making. Interestingly, sophisticated investors and female investors are less affected by strong puffery statements.

Finally, Part IV offers some thoughts on the policy implications of my findings in the analysis of court cases and suggests potential future research.

I. What is the Puffery Defense

A. *A Blurry Definition*

The puffery defense is not easy to define. Generally speaking, it shields statements that are too vague or too optimistic from liability with respect to misleading purchases, investments, and services. For example, a lawsuit claiming that an advertisement claiming an alcoholic beverage is "probably the best beer in the world"[6] is misleading would be dismissed as mere puffery. There is no bright-line, however, to determine *ex ante* which statements are puffery and which statements are not. Indeed, some scholars have addressed the puffery defense as an "I-know-it-when-I-see-it phenomenon."[7]

The puffery defense exists in different areas of the law, including false advertising, securities fraud, mail fraud, legal ethics, common law contracts, Uniform Commercial Code warranty cases, and promissory misrepresentation.[8] The definition and the elements of the puffery defense vary among these legal domains.[9] For example, the puffery defense in false advertising cases protects opinions, as opposed to facts. By contrast, such a distinction does not exist in securities cases, where the test is whether the statement is

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[6] Carlsberg's previous tagline. See one of Carlsberg's ads on YouTube: https://www.youtube.com/watch?v=bAR-XDPiJ50 (last visited Jan. 19, 2015).

[7] Richard J. Leighton, *Making Puffery Determinations in Lanham Act False Advertising Cases: Surveys, Dictionaries, Judicial Edicts and Materiality Tests*, 95 Int'l Trademark Rep. 615, 618 (2005) ("Frequently, puffery is defined both by what it is and what it is *not* . . . . In some cases, puffery appears to be an I-know-it-when-I-see-it phenomenon to which the closest of the many broad definitions of the concept is then applied or extended after the fact to cover the claim.") (emphasis in original).

[8] David A. Hoffman, *The Best Puffery Article Ever*, 91 Iowa L. Rev. 1395, 1397 (2006).

[9] *See id.*

optimistic or vague.[10] In addition, while verb tense plays a role in securities cases, it does not affect the puffery defense in other areas of the law.[11]

The origins of the puffery defense can be traced to the sixteenth century, when the marketplace and the legal approach to selling were very different from today.[12] Back then, the legal principle was that of *caveat emptor*, a Latin expression meaning "[l]et the buyer beware." Since all trading in these earlier days related to tangible assets, buyers were expected to carefully examine the goods before buying them. If the buyer failed to check the goods and they turned out to be damaged, the buyer was not protected by law.[13] As Fitzherbert, a compiler of English law, wrote in 1534 with respect to a purchase of a horse: "If he be tame and have ben rydden upon, then caveat emptor."[14]

The principle of *caveat emptor* legitimized various statements made by sellers, even statements that were completely false.[15] While fraudulent statements are no longer shielded from liability, puffery statements have remained legitimate.

What has changed, however, is the rationale behind the puffery defense. Through the years, the reasoning has shifted from assuming that the buyer checks his or her purchased object to presuming that nobody relies on puffery statements. This presumption was clearly articulated as early as 1887 in the following words: "The law recognizes the fact that men will naturally overstate the value and qualities of the articles which they have to sell. All men know this, and a buyer has no right to rely on such statements."[16] In 1918, Judge Learned Hand wrote this oft-quoted phrase: "There are some kinds of talk which no man takes seriously, and if he does he suffers from his credulity."[17] As discussed below, this rationale remains the main justification for the puffery defense in securities cases.

B. The Puffery Defense in Securities Cases

1. Rule 10b-5

The core of the securities regulation regime in the United States is mandatory disclosure.[18] The philosophy behind the disclosure regime is that it protects investors by providing them the information to make an informed

[10] *See id.*
[11] *See id.* at 122.
[12] Ivan L. Preston, The Great American Blow-Up: Puffery in Advertising 28–29 (1996).
[13] *See id.* at 29.
[14] *See id.*
[15] *See id.*
[16] Kimball v. Bangs, 11 N.E. 113 (1887).
[17] Vulcan Metals v. Simmons, 248 F. 853 (2d Cir. 1918).
[18] Stephen J. Choi & A.C. Pritchard, Securities Regulation: Essentials 23 (2008).

decision whether or not to buy or sell a security.[19] To make the disclosure requirement more meaningful, Section 10b-5 of the Securities and Exchange Act of 1934 (the Exchange Act) imposes liability for "any untrue statement of a material fact . . . in connection with the purchase or sale of any security."[20]

What is a *material* fact? The Supreme Court, in *TSC Industries v. Northway*, adopted a balancing approach with respect to materiality.[21] The Court held that:

> An omitted fact is material if there is a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote. . . . Put another way, there must be a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the "total mix" of information made available.[22]

TSC Industries involved an alleged misstatement in a proxy statement, but the Court's materiality test has been applied in many areas of securities law, including Rule 10b-5.[23]

The issue of materiality has been characterized as a mixed question of law and fact.[24] It is not an easy task to draw the line between disclosure that may affect the "total mix of information"[25] and disclosure that may not. It requires a case-by-case determination, which is "extremely fact-intensive."[26] As such, materiality has to be decided by the trier of fact.[27] Only in rare cases, where the disclosure is "so obviously important to an investor, that reasonable minds cannot differ on the question of materiality," may the court bypass the jury and resolve the issue as a matter of law by summary judgment.[28] However, the evidence suggests that courts dismiss securities claims involving the issue of materiality as a matter of law much more often than expected.[29] As I will explain below, one doctrine that courts rely upon to dismiss such claims in the pre-trial stage is the puffery defense.

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[19] As the oft-quoted phrase by Louis D. Brandeis goes: "Sunlight is said to be the best of disinfectants; electric light the most efficient policeman." Louis D. Brandeis, Other People's Money and how the Bankers Use It 92 (1914).

[20] 17 C.F.R. 240.10b-5 (2014).

[21] *See* TSC Industries v. Northway, 426 U.S. 438 (1976).

[22] *Id.* at 449.

[23] In Basic, Inc. v. Levinson, 485 U.S. 224 (1988), the Supreme Court affirmed and adopted the *TSC Industries* definition of materiality in the context of Rule 10b-5.

[24] *See TSC Industries*, 426 U.S. at 450.

[25] *Id.* at 449 (quotations omitted).

[26] Stefan J. Padfield, *Immaterial Lies: Condoning Deceit in the Name of Securities Regulation*, 61 Case W. Res. L. Rev. 143, 153 (2010).

[27] *See* TSC Industries v. Northway, 426 U.S. 438, 450 (1976).

[28] *Id.*

[29] *See* David A. Hoffman, *The "Duty" To Be a Rational Shareholder*, 90 Minn. L. Rev. 537, 542 (2006) (presenting "evidence that courts dismiss securities claims on the ground of presumed immateriality in half of opinions considering materiality.").

The materiality test refers to a reasonable investor, but the Court in *TSC Industries* did not shed much light on what defines a reasonable investor. Lower courts have inconsistently defined the term. As one scholar noted, "a review of the cases revealed conceptions of the reasonable investor stretching from 'sophisticated' to 'average' to 'naïve.'"[30] It seems, however, that the courts have consistently associated a reasonable investor with a rational investor.[31] Courts have assumed that investors "can do the math" to calculate a company's financial bottom line,[32] diversify their investments[33] and demonstrate awareness of general economic conditions.[34] The Court has also instructed lower courts to avoid treating reasonable investors like "nitwits"[35] or ascribing to them "child-like simplicity."[36]

2. *The Definition of Puffery and its Relation to Materiality*

The puffery defense in the securities context refers to statements that are so optimistic, general, broad, or vague that no investor would find them important.[37] For example, in *Eisenstadt v. Centel Corp.*,[38] the management of Central decided to conduct a competitive auction for the company's stock.[39] During the auction, the company stated that the bidding process "con-

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[30] Padfield, *supra* note 26, at 155; *see, e.g.*, Piambino v. Bailey, 610 F.2d 1306, 1320 (5th Cir. 1980) (analogizing reasonable investor to the torts standard of a reasonable person); SEC v. Texas Gulf Sulphur Co., 401 F.2d 833, 849 (2d Cir. 1968), *cert. denied*, 394 U.S. 976 (1969) ("Speculators and chartists of Wall and Bay Streets are also 'reasonable' investors entitled to the same legal protection afforded conservative traders.").

[31] *See* Barbara Black, *Behavioral Economics and Investor Protection: Reasonable Investors, Efficient Markets*, 44 Loy. U. Chi. L. J. 1493 (2013); Margaret V. Sachs, *Materiality and Social Change: The Case for Replacing "the Reasonable Investor" with "the Least Sophisticated Investor" in Inefficient Markets*, 81 Tul. L. Rev. 473, 473 (2006) (arguing that the standard of the reasonable investor as a "savvy person who grasps market fundamentals" is outdated and does not accommodate today's realities); David A. Hoffman, *supra* note 29 at 539 (describing courts' requirement that investors be "economically rational").

[32] *See In re* Merck & Co. Sec. Litig., 432 F.3d 261, 270–71 (3d Cir. 2005) (treating a piecemeal disclosure of quite complex arithmetical calculations as a factual disclosure of the solution); Stefan J. Padfield, *Who Should Do the Math? Materiality Issues in Disclosures that Require Investors to Calculate the Bottom Line*, 34 Pepp. L. Rev. 927, 943–44 (2007).

[33] Dodds v. Cigna Sec., Inc., 12 F.3d 346, 351 (2d Cir. 1993).

[34] *In re* Donald Trump Casino Sec. Litig.—Taj Mahal Litig., 7 F.3d 357, 377 (3d Cir. 1993).

[35] Basic Inc. v. Levinson, 485 U.S. 224, 234 (1988) (quoting Flamm v. Eberstadt, 814 F.2d 1169, 1175 (7th Cir. 1987)).

[36] *Id.*

[37] *See, e.g.*, Shaw v. Digital Equip. Corp., 82 F.3d 1194, 1217 (1st Cir. 1996) (describing puffery as "rosy affirmation[s] commonly heard from corporate managers and numbingly familiar to the marketplace—loosely optimism statements that are so vague . . . that no reasonable investor could find them important . . . ."); *In re* Vivendi Universal, S.A. Sec. Litig., 765 F. Supp. 2d 512, 572 (S.D.N.Y. 2011) ("Puffery is an optimistic statement that is so vague, broad, and non-specific that a reasonable investor would not rely on it, thereby rendering it immaterial as a matter of law."); ECA & Local 134 IBEW Joint Pension Trust of Chi. v. JP Morgan Chase Co., 553 F.3d 187, 206 (2d Cir. 2009) (describing puffery statements as "statements [that] are too general to cause a reasonable investor to rely upon them.").

[38] Eisenstadt v. Centel Corp., 113 F.3d 738 (7th Cir. 1997).

[39] *See id.* at 740.

tinue[d] to go very well" and was progressing "very smoothly."[40] In reality, however, the bidding was not going well and the company was disappointed by prospective bidders' lack of interest.[41] The bidding failed and Centel had to sell its stock at a much lower price than expected.[42] Shareholders who bought the company's stock after the optimistic announcements filed a class action claiming that the company's statements were misleading.[43] Centel argued that its statements were mere puffery, and the Seventh Circuit accepted the argument. The court held:

> We doubt that nonspecific representations that an auction process is going well or going smoothly could . . . influence a reasonable investor to pay more for stock than he otherwise would. *Everybody* knows that someone trying to sell something is going to look and talk on the bright side. You don't sell a product by bad mouthing it. . . . It would be unreasonable for investors to attach significance to *general* expressions of satisfaction with the progress of the seller's efforts to sell, just as it would be unreasonable for them to infer from a potential bidder's apparent lack of enthusiasm that the bidder was uninterested rather than just jockeying for a better price.[44]

Indeed, according to the courts' reasoning, puffery statements do not cause a reasonable investor to rely on them, and hence they are not actionable.[45] This lack of reliance is the courts' main justification for the immateriality of puffery statements.

As a result of puffery statements being immaterial as a matter of law,[46] these statements are shielded from liability at a preliminary stage, and the issue is "decided on the basis of pretrial motions to dismiss or summary judgment" without a jury.[47] In other words, when statements are found to be puffery, the court does not analyze the materiality issue. Consequently, it does not assess the total mix of information available to investors.[48]

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[40] *Id.* at 741.

[41] *Id.*

[42] *See id.* at 742.

[43] *See id*. at 740.

[44] *Id.* at 745 (emphasis in original).

[45] See *In re* UBS Ag Secs. Litig. 2012 U.S. Dist. LEXIS 141449 (citing ECA & Local 134 IBEW Joint Pension Trust of Chi. v. JP Morgan Chase Co., 553 F.3d 187, 206 (2d. Cir. 2009).

[46] *See, e.g.*, *In re Vivendi Universal*, 765 F. Supp. 2d at 572.

[47] Padfield*, supra* note 26, at 153.

[48] This is one of the criticisms of the puffery defense. *See* Stefan J. Padfield, *Is Puffery Material to Investors? Maybe We Should Ask Them*, 10 U. PA. J. BUS. & EMP. L. 339, 353 (2008) (offering an analytical framework by dividing the various criticisms into three categories).

3. *Special Safe Harbors for Forward Looking Statements*

Puffery statements can refer to current facts or forward-looking statements. For example, company statements about a bidding process going "very smoothly"[49] or soft information about future plans, beliefs, and hopes can be puffery. The latter are forward-looking statements, which are, by their nature, unverifiable and uncertain. As such, courts have tended to accept the puffery defense for forward-looking statements more easily than for statements about the past or the present.[50] The Fourth Circuit, in *Raab v. General Physics Corp.*,[51] explained the underlying policy argument for the different treatment of puffery statements about the future:

> [P]redictions of future growth . . . will almost always prove to be wrong in hindsight. . . . Imposing liability would put companies in a whipsaw, with a lawsuit almost a certainty. Such liability would deter companies from discussing their prospects, and the securities markets would be deprived of the information those predictions offer.[52]

The *Raab* court also held that for a forward-looking statement to be material, it must rise to the level of a guarantee. This "guarantee standard" has been employed in other fourth circuit cases, as well as by other circuits.[53]

In the past, the Securities and Exchange Commission (SEC) did not allow companies to include forward-looking statements in their SEC filings because it believed that investors could misuse this soft information.[54] However, during the 1970s, the SEC acknowledged the importance of forward-looking statements to investors' decision-making and encouraged companies to voluntarily disclose management projections in their SEC filings.[55] Today, item 303 of Regulation S-K specifically requests management to describe what trends will impact the company's future results and financial condition.[56]

Through the years, the courts have developed a defense for companies that couch their forward-looking statements with meaningful cautionary language.[57] This doctrine—called the "bespeaks caution" doctrine—is based on

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[49] *See* Eisenstadt v. Centel Corp., 113 F.3d 738, 741 (7th Cir. 1997).
[50] *See* David A. Hoffman, *supra* note 8 at 111.
[51] Raab v. Gen. Physics Corp., F.3d 286 (4th Cir. 1993).
[52] *Id.* at 290.
[53] James D. Cox et al., Securities Regulation Cases and Materials 617 (6th ed. 2009).
[54] *Id.* at 610.
[55] See Disclosure of Projections of Future Economic Performance, Securities Act Release No. 5362 (1973) and Guide for Disclosure of Projections for Future Economic Performance, Securities Act Release No. 5992 (1978).
[56] 17 C.F.R. § 229–303.
[57] *See In re* Donald Trump Casino Sec. Litig.—Taj Mahal Litig., 7 F.3d 357, 364 (3d Cir. 1993).

the notion that cautionary language reduces investors' reliance on forward-looking statements and renders these statements immaterial.[58]

Despite the bespeaks caution doctrine, companies were "reluctant to make forward-looking statements out of fear that any inaccuracy in their projections would trigger the filing of a securities class action lawsuit."[59] In light of this fear, and to encourage the disclosure of forward-looking statements that could be helpful for investors, Congress created statutory safe harbors in the Private Securities Litigation Reform Act of 1995 (PSLRA).[60] The PSLRA added Section 27A to the Securities Act of 1933 (the Securities Act) and Section 21E to the Exchange Act. These parallel provisions protect certain persons from liability in private actions if their statement fits within any of the following three categories: (1) a forward-looking statement that "is accompanied by meaningful cautionary statements identifying the important factors that could cause actual results to differ materially from those in the forward-looking statement;" (2) a forward-looking statement if the plaintiff fails to prove that the statement was made with actual knowledge that it was false or misleading; and (3) immaterial forward-looking statements.[61]

The safe harbor is unavailable for certain issuers and for certain forward-looking statements, such as those made in connection with an initial public offering or a tender offer. If the safe harbor is unavailable, companies may attempt to rely on the bespeaks caution doctrine.[62]

The PSLRA safe harbors and the bespeaks caution doctrine are often used by the courts to shield puffery statements about the future. In light of the blurry definition of puffery, securing one of the PSLRA safe harbors is a better option for companies and those who make puffery statements on their behalf.

4. *Statements of Opinion and Puffery*

Are statements of opinion immaterial *per se* and shielded from liability? The Supreme Court, in *Virginia Bankshares, Inc. v. Sandberg*,[63] held that the answer is no. *Sandberg* involved a "freeze-out" merger in which the minority shareholders of First American Bank of Virginia were urged to receive what the bank stated to be a "high value" and a "fair price" for the stock.[64] However, the bank was aware of much higher valuations for the stock.[65] The plaintiffs argued that the bank's statements constituted actiona-

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[58] *Id.*

[59] Cox et al., *supra* note 53 at 617.

[60] Pub. L. 104-67, 109 Stat. 737 (1995).

[61] *See* 15 U.S.C. § 77z–2.

[62] When passing the PSLRA, the legislature's explicit intention was that the bespeaks caution doctrine would persist and continue to develop. *See* House of Representatives Report No. 104-369 at 46.

[63] Virginia, Bankshares, Inc. v. Sandberg, 501 U.S. 1083 (1991).

[64] *Id.* at 1087–88.

[65] *Id.* at 1094.

ble misrepresentations under the proxy fraud provisions of the Exchange Act.[66] The Court held that the bank's statements of belief were materially significant to shareholders, reasoning that:

> Shareholders know that directors usually have knowledge and expertness far exceeding the normal investor's resources, and the directors' perceived superiority is magnified even further by the common knowledge that state law customarily obliges them to exercise their judgment in the shareholders' interest.[67]

But the majority opinion also observed that to be actionable, there must be objective evidence that the statement of opinion is false or misleading, and that mere subjective disbelief or undisclosed motivation will not suffice.[68] The Court found that the bank's directors possessed objective evidence contradicting their opinion about the stock value.[69]

The Court, in *Omnicare Inc. v. Laborers District Council Construction,*[70] recently considered a similar question in connection with Section 11 of the Securities Act, which imposes civil liability on issuers and additional persons for a material misrepresentation or omission in a registration statement.[71] In *Omnicare*, the plaintiffs argued that the defendant's statement that it "was in compliance with applicable federal and state laws" was a false statement of material fact, since it did not comply with such laws. The Supreme Court held that Section 11 distinguishes between statements of fact and statements of opinion by exposing issuers to liability only for "untrue statement[s] of . . . fact."[72] Material statements of opinion, however, are not wholly immune from liability. Since every statement of opinion affirms the fact that the speaker actually holds the stated belief, if the opinion is not sincerely held it will be actionable.[73] The Court held that the plaintiffs could not establish liability in this respect since Omnicare's sincerity was not contested.[74]

As for omissions of facts, the Court held that these create liability if the registration statement omits material facts about the issuer's basis for holding that view, and those facts conflict with what a reasonable investor, reading the statement in context, would take from the statement itself.[75] Here, too, the Court envisions a rational investor who "reads each statement within

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[66] *Id.* at 1088.

[67] *Id.* at 1091.

[68] *Id.* at 1095–96.

[69] *Id.* at 1098.

[70] Omnicare, Inc. v. Laborers Dist. Council Constr. Indus. Pension Fund, 135 S. Ct. 1318 (2015).

[71] *See* 15 U.S.C. § 77k (1998).

[72] Omnicare, Inc. v. Laborers Dist. Council Constr. Indus. Pension Fund, 135 S. Ct. at 1325–26.

[73] *Id.* at 1326.

[74] *Id.* at 1327.

[75] *Id.* at 1329.

[the registration statement] in light of all its surrounding text, including hedges, disclaimers, and apparently conflicting information" and who "understands a statement of opinion in its full context."[76] The Court remanded the case for a determination of whether the plaintiffs had stated a viable omission claim.[77]

The courts have not addressed the relationship between puffery statements and statements of opinion. With respect to statements of opinion, the defendant can prevail in two ways. The defendant can first raise the puffery defense. If the puffery defense is rejected, the plaintiff must still prove that the statements were not the sincere opinions of the defendant in order to win. As a result of the Court rejecting the objective falsity standard and heightened the pleading burden, issuers may now prefer framing their puffery statements as statements of opinion. To avoid exposure for omissions, however, issuers should take measures to verify the factual assertions underlying the opinion.

It should be noted that this analysis is limited to Section 11 of the Securities Act. The Court was clear that it would be more difficult for investors to claim that they were misled outside the context of a carefully drafted and heavily regulated registration statement.[78]

II. Analysis of Recent Federal Court Decisions

A. *The Data Set and the Rising Popularity of the Puffery Defense*

This section addresses the lack of literature on the puffery defense by reviewing and analyzing federal court decisions from 2009 to 2013. This review was guided by two objectives: (1) fill the gap in the literature regarding recent trends with respect to the puffery defense in the securities area; and (2) select cases to be used in the experiment described in section IV(c) of this Article.

For these purposes, I searched cases in which the courts explicitly used the word "puffery" in the practice area of securities law on the Lexis Advance website. The resulting data set had 374 cases, of which 141 cases did not refer to the puffery defense in the context of securities law. After this initial screening, my data set included 233 federal court cases.

It should be noted that it might be possible for a court to refer to the puffery defense without actually using the word puffery.[79] In this respect, the

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[76] *Id.* at 1330.
[77] *Id.* at 1333.
[78] *Id.* at 1330 ("Investors do not, and are right not to, expect opinions contained in those statements to reflect baseless, off-the-cuff judgments, of the kind that an individual might communicate in daily life.")
[79] For a broader coding method *see* David A. Hoffman, *supra* note 29 at 576.

data set may have a sampling error, so it is not necessarily representative of all federal court opinions addressing the puffery defense in the tested period.

My analysis reveals that the puffery defense has been widely accepted by the federal courts. Out of 233 relevant cases, the puffery defense was accepted in 171 cases, which is 73% of the surveyed cases. Focusing only on the Second Circuit and its district courts, the puffery defense was accepted in 69 out of 95 cases in total during the tested period. In comparison, law professor David Hoffman found only 23 cases in which the Second Circuit and its district courts accepted the puffery defense in a 30-year period between 1976 to November 2004.[80]

These findings should not come as a surprise in light of the rising popularity of the puffery defense in the last three decades. While at the beginning of the 1990s the puffery defense was declared moribund,[81] scholars started to notice its revival by the end of the 1990s and the beginning of 2000s.[82]

B. The Courts' Reasoning

Law professor Jennifer O'Hare addressed the re-emergence of the puffery defense in the late 1990s and pointed out that it was "especially worrisome considering the lack of reasoned analysis"[83] by the courts. She added that the cases that she had reviewed "demonstrate[d] that the courts have merely cited older and distinguishable puffery cases before dismissing the case before them with little or no analysis."[84]

A review of recent decisions confirms that the courts continue to lack reasoned analysis on the puffery defense. The vast majority of courts do not analyze the underlying reasons for their decisions to accept or reject the puffery defense. When accepting the puffery defense, the courts generally just categorize a statement as vague or optimistic, sometimes citing older cases about the definition of puffery or similar cases that accepted the puffery defense. A recurring message in the courts' decisions is that investors do not rely on puffery statements. Although this is often framed as a justifica-

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[80] *Id.* at 575. It should be noted, however, that Hoffman's data base is not necessarily representative of all court actions on puffery. *See id.* at 563.

[81] *See* 7 LOUIS LOSS & JOEL SELIGMAN, SECURITIES REGULATIONS 3434 (3d ed. 1991).

[82] *See* Jennifer O'Hare, *The Resurrection of the Dodo: The Unfortunate Re-emergence of the Puffery Defense in Private Securities Fraud Actions*, 59 OHIO ST. L. J. 1697 (1998) (relying on anecdotal evidence to demonstrate the revival of the puffery defense in securities cases); 7 LOSS & SELIGMAN, *supra* note 86 at 3424 ("[A]las, however, the puffing concept in the securities context, which for decades had all but gone the way of the dodo, has recently experienced a revival."); David A. Hoffman, *supra* note 29 at 563, 583 (analyzing 472 federal securities opinions that discuss the issue of immateriality from the Second Circuit and its district courts from 1976 to November 2004 and finding that the tested courts' use of the puffery defense has been significantly increased over the tested period).

[83] Jennifer O'Hare, *supra* note 82 at 1699.

[84] *Id.*

tion for the puffery defense, courts have not elaborated on this important insight.[85]

In some cases, the puffery word or statement is clearly vague, making a thorough analysis of materiality unnecessary. For example, a corporation's statement that it had a "solid year,"[86] that it is "pretty pleased with the performance" of a new format,[87] or that its new building is "magnificent" and is "going to be something else"[88] would all clearly be puffery.

In other cases, however, it is not clear whether a statement should be regarded as mere puffery.[89] For example, a company's false statement to potential investors that certain high-profile investors, such as Warren Buffet and Dow Chemical, were considering investing in the company should be

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[85] *See, e.g., In re* MF Glob. Holdings Sec. Litig., 2013 U.S. Dist. LEXIS 161224, at *62 (S.D.N.Y. Nov. 12, 2013) ("Puffery is an optimistic statement that is so vague, broad, and non-specific that a reasonable investor would not rely on it, thereby rendering it immaterial as a matter of law."); Shemian v. Research in Motion Ltd., 2013 U.S. Dist. LEXIS 49699, at *69 (S.D.N.Y. Mar. 28, 2013) ("Plaintiff points to a number of statements that were clearly hype that was unlikely to spur investor reliance."); *In re* UBS AG Sec. Litig., 2012 U.S. Dist. LEXIS 141449, at *46 (S.D.N.Y. Sept. 28, 2012) ("Statements that are too general to cause a reasonable investor to rely on them are not actionable.") (internal quotation marks omitted); *In re* ITT Educ. Servs., 859 F. Supp. 2d 572, 580 (S.D.N.Y. 2012) ("These statements are precisely the type of vague, boilerplate pronouncements that no reasonable investor would substantially rely upon when evaluating a company."); Police Ret. Sys. v. Intuitive Surgical, Inc., 2012 U.S. Dist. LEXIS 71429, at *37 (N.D. Cal. May 22, 2012) ("In the Ninth Circuit, vague, generalized assertions of corporate optimism or statements of 'mere puffing' are not actionable material misrepresentations under federal securities laws because no reasonable investor would rely on such statements."); *In re* Apollo Grp., Inc. Sec. Litig., 2012 U.S. Dist. LEXIS 87223, at *17 (D. Ariz. June 22, 2012) ("The Court agrees that these statements are inherently subjective and would not induce the reliance of a reasonable investor."); *In re* BP P.L.C. Sec. Litig., 843 F. Supp. 2d 712, 748 (S.D. Tex. 2012) ("Allegations that amount to little more than corporate 'cheerleading' are puffery, projections of future performance not worded as guarantees, and are not actionable under federal securities law because no reasonable investor would consider such statements material and because investors and analysts are too sophisticated to rely on vague expressions of optimism rather than specific facts."); Plumbers & Pipefitters Local Union No. 630 Pension-Annuity Tr. Fund v. Allscripts-Misys Healthcare Sols.,, Inc., 778 F. Supp. 2d 858, 872 (N.D. Ill. 2011) ("Davis's statement regarding Version 11 and its contribution to helping Allscripts become the 'Bloomberg of healthcare' is the type of banal corporate cheerleading that reasonable investors expect and disregard."); *In re* Vivendi Universal, S.A. Sec. Litig., 765 F. Supp. 2d 512, 572 (S.D.N.Y 2011) ("Puffery is an optimistic statement that is so vague, broad, and non-specific that a reasonable investor would not rely on it, thereby rendering it immaterial as a matter of law."); SEC v. Kearns, 691 F. Supp. 2d 601, 617 (D.N.J. 2010) ("The vague and general statements about management discipline given at the quarterly meetings are just the sort of puffery that cannot form the basis of liability, because no reasonable investor would have relied on them."); *In re* Austl. & N.Z. Banking Grp. Sec. Litig., 2009 U.S. Dist. LEXIS 116578, at *32 (S.D.N.Y. Dec. 14, 2009) ("Statements are properly classified as 'puffery' when they are too general to cause a reasonable investor to rely upon them.") (internal quotation marks omitted).

[86] Frank v. Dana Corp., 649 F. Supp. 2d 729, 744 (N.D. Ohio 2009).

[87] *In re* Coinstar Inc. Sec. Litig., 2011 U.S. Dist. LEXIS 115794, at *22 (W.D. Wash. Oct. 6, 2011).

[88] *See* Fosbre v. Las Vegas Sands Corp., 2013 U.S. Dist. LEXIS 160631, at *55 (D. Nev. Nov. 7, 2013).

[89] *See* TSC Industries v. Northway, 426 U.S. 438 (1976).

carefully analyzed before dismissing a securities fraud lawsuit at a preliminary stage.[90]

In her article, O'Hare proposes a framework for determining whether a statement should be considered puffery. According to her proposal, "the courts should conduct a full materiality analysis by examining both the statement itself and the context in which the statement was made."[91] My review finds that only in a few cases, mainly in the Seventh Circuit, have the courts considered the context in which the statement was made.

For example, the District Court for the Northern District of Illinois declined to hold at a preliminary stage of the litigation that certain statements were puffery, stating that:

> Glickman's claim that Corus's balance-sheet was "fortress-like" might seem too vague and metaphorical to be actionable. When the surrounding context is taken into account, however, the matter is less clear. It is worth noting, for example, that the statement was used not only in a press release . . . but also in a SEC Form 10-Q . . . .[92]

Most courts also do not address the policy objectives underlying the puffery defense. One policy objective relates to the efficiency of the judicial process and the need to fight strike suits. If a statement is so vague or optimistic that no reasonable investor would rely on it, there is no need to waste time and money investigating the materiality of the statement. In addition, securities class actions have been criticized for disproportionately asserting frivolous claims.[93] The puffery defense can dispose of frivolous strike suits at a preliminary stage.[94]

The question of whether a statement is so vague or optimistic that no reasonable investor would rely on it is usually a difficult one. As is the question of whether a suit is truly without merit. Thus, the efficiency objective cannot justify many of the puffery cases. Indeed, this objective was not mentioned in the cases that I reviewed.

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[90] Carlucci v. Han, 886 F. Supp. 2d 497, 506 (E.D. Va. 2012).

[91] Jennifer O'Hare, *supra* note 82 at 1737.

[92] Jones v. Corus Bankshares, Inc., 701 F. Supp. 2d 1014, 1028 (N.D. Ill. 2010); *see also* City of Sterling Heights Gen. Emples. Ret. Sys. v. Hospira, Inc., No. 11 C 8332, 2013 U.S. Dist. LEXIS 19156, at *19 (N.D. Ill. Feb. 13, 2013); Ross v. Career Educ. Corp., No. 12 C 276, 2012 U.S. Dist. LEXIS 155037, at *20–21 (N.D. Ill. Oct. 30, 2012); *In re* St. Jude Med. Inc. Secs. Litig., 836 F. Supp. 2d 878, 888 (D. Minn. 2011) (considering the context in which the statements were made).

[93] John C. Coffee Jr., *Reforming the Securities Class Action: An Essay on Deterrence and its Implementation,* 106 COLUM. L. REV. 1534 (2006).

[94] *See* Gregory R. Roussel, Securities Fraud or Mere Puffery: Refinement of the Corporate Puffery Defense, 51 Vand. L. Rev. 1049, 1083 (1998) ("In the face of a growing number of securities fraud class action suits, some courts recognized the potential effect of the Corporate Puffery Defense would be to eliminate a large number of frivolous strike suits at a preliminary stage."); Stefan J. Padfield, *supra* note 51, at 349 ("[C]ourts have come up with various safety valves to allow them to dispose of what they see as frivolous claims. One of these safety valves is the puffery doctrine.").

Another policy objective that may justify the puffery defense is the protection of corporate speech. The immunization of puffery based on First Amendment constitutional grounds is still disputed.[95] Some courts, however, mention a related objection: a right to be optimistic. In several cases, puffery statements were shielded based on the argument that "up to a point, companies must be permitted to operate with a hopeful outlook."[96] As the Second Circuit noted:

> People in charge of an enterprise are not required to take a gloomy, fearful or defeatist view of the future; subject to what current data indicates, they can be expected to be confident about their stewardship and the prospects of the business that they manage.[97]

In fact, this policy objective seems grounded in behavioral economics. Researchers have found that people are unrealistically optimistic in many domains.[98] In addition, people tend to be overconfident about the accuracy of their estimations or forecasts.[99]

The "right to be optimistic" acknowledges the optimism bias and shields statements that are basically part of human nature.[100] The problem with this approach is that it takes only the defendant's biases into account, while disregarding the plaintiff's biases. Plaintiffs, like other people, may be

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[95] David A. Hoffman, *supra* note 8, at 1426 ("[T]he constitutional status of current approaches to puffery is contested and depends on a yet-to-be-articulated theory of when commercial speech misleads.").

[96] Rombach v. Chang, 355 F.3d 164, 174 (2d Cir. 2004); *see also In re* UBS Ag Secs. Litig., No. 07 Civ. 11225 (RJS), 2012 U.S. Dist. LEXIS 141449, at *35 (S.D.N.Y. Sept. 28, 2012); In re MF Glob. Holdings Secs. Litig., 982 F. Supp. 2d 277, 305 (S.D.N.Y. 2013); City of Roseville Emps. Ret. Sys. v. Nokia Corp., 10 CV 00967, 2011 U.S. Dist. LEXIS 101264, at *6 (S.D.N.Y. Sept. 6, 2011); In re MELA Scis. Secs. Litig., 10 CV 8774 (VB), 2012 U.S. Dist. LEXIS 144150, at *10 (S.D.N.Y. Sept. 19, 2012) (quoting this objective).

[97] Shields v. Citytrust Bancorp., 25 F.3d 1124, 1129–30 (2d Cir. 1994); *see also In re* UBS Ag Secs. Litig., 2012 U.S. Dist. LEXIS 141449, at *35; *In re* Austl. & N.Z. Banking Group Secs. Litig., 08 Civ. 11278 (DLC), 2009 U.S. Dist. LEXIS 116578, at 22 (S.D.N.Y. Dec. 14, 2009); *In re* MF Global Holdings Secs. Litig., 982 F. Supp. 2d 277, 305 (S.D.N.Y. 2013); City of Austin Police Ret. Sys. v. Kinross Gold Corp., 957 F. Supp. 2d 277, 297 (S.D.N.Y. 2013); *City of Roseville*, 2011 U.S. Dist. LEXIS 101264, at *6; Lemond v. Manzulli, 05 Civ. 2222 (ILG), 2009 U.S. Dist. LEXIS 50135, at *7 (S.D.N.Y. Feb. 9, 2009); Ross v. Lloyds Banking Group, PLC, 11 Civ. 8530 (PKC), 2012 U.S. Dist. LEXIS 148984, at 15 (Oct. 16, 2012); Pension Trust Fund for Operating Eng'rs v. Assisted Living Concepts, Inc., 2013 U.S. Dist. LEXIS 87568; Hopson v. MetroPCS Commc'ns, Inc., No. 3:09–CV–2392–G, 2011 U.S. Dist. LEXIS 47177, at *19 (Mar. 25, 2011) (quoting this rationale).

[98] For example, most people think that their chances of having an auto accident are significantly lower than the average person's chances of experiencing this event (*see, e.g.*, David M. DeJoy, *The Optimism Bias and Traffic Accident Risk Perception*, 21 ACCIDENT ANALYSIS & PREVENTION 333 (1989)).

[99] John S. Hammond et al., *The Hidden Traps in Decision Making*, 76(5) HARV. BUS. REV. 47 (1998).

[100] *See* David A. Hoffman, *supra* note 8 at 137 (mentioning that courts "may implicitly be making a policy case for puffery based on a lay understanding of the optimism bias.").

overconfident and be subject to their own optimism bias.[101] In addition, as discussed below, plaintiffs may actually believe and rely on puffery statements. Thus, the courts' view with respect to this potential justification to the puffery defense is narrow and one dimensional.

Of course, there are also policy arguments against the puffery defense. The first focuses on the procedural aspect of the puffery defense. As mentioned above, the question of materiality is fact-intensive, and should generally be decided by the trier of fact.[102] When a court dismisses a lawsuit at an early stage based on the puffery defense, the plaintiff loses the opportunity to present his or her case in front of a jury, which may have decided differently.[103] Indeed, juries arguably may be more suitable to assess whether a statement is material or not.[104]

Only a few of the courts' decisions that I reviewed referred to this aspect of the puffery defense. For example, in *Bricklayers & Masons Local Union No. 5 Ohio Pension Fund v. Transocean Ltd.*,[105] the District Court for the Southern District of New York rejected the puffery defense, explaining that:

> In deeming a statement puffery at the motion to dismiss stage, courts must exercise great caution. As explained above, materiality determinations entail delicate, fact-intensive assessments that are more properly left to the jury. The only circumstance in which a Court may deem a statement immaterial as a matter of law is when it is "so obviously unimportant to a reasonable investor that reasonable minds could not differ on the question of their importance."[106]

The vast majority of the decisions, however, did not mention the procedural consideration against the puffery defense.

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[101] *See id.* at 137 (describing studies about buyers' optimism bias).

[102] Padfield, *supra* note 48, at 353.

[103] Peter H. Huang, *Moody Investing and the Supreme Court: Rethinking the Materiality of Information and the Reasonableness of Investors*, 13 SUP. CT. ECON. REV. 99, 117 (2005) ("The problem with judicial early dismissal of a securities puffery case as a matter of law under Federal Rule of Civil Procedure 12(b)(6) or at summary judgment is that a reasonable jury might have decided differently had that jury been given the opportunity to do so.").

[104] *Id.* ("[I]n terms of institutional competence, juries may possess a comparative advantage over judges in being able to determine if puffery affects moods and in so doing, securities investing.").

[105] Bricklayers & Masons Local Union No. 5 Ohio Pension Fund v. Transocean Ltd., 866 F. Supp. 2d 223 (S.D.N.Y. 2012).

[106] *Id.* at 244; *see also* Allstate Ins. Co. v. Countrywide Fin. Corp. 824 F. Supp. 2d 1164, 1185-86 (C.D. Cal. 2011) (rejecting the defendants' motion to dismiss with respect to puffery, saying that the issue of materiality entails "mixed questions of law and fact and therefore best reserved for summary judgment"); Wilkof v. Caraco Pharm. Labs, Ltd. 2010 U.S. Dist. LEXIS 112768, at *14 (E.D. Mich. Oct. 21, 2010) (rejecting a motion to dismiss, holding that whether the defendants' statements are puffery or not "is a factual question that this Court will not resolve on a Rule 12(b)(6) motion").

A second argument against the puffery defense is that investors do in fact rely on puffery statements, contrary to what had been presumed by the courts. For this reason, the argument goes, puffery statements should not be deemed immaterial as a matter of law, but rather should be analyzed carefully by the trier of fact. This criticism, which has already been raised by several scholars,[107] is based on research in behavioral economics showing that language and framing affect people's decision making. Focusing on this criticism, Part IV begins with a review of existing research about the effects of puffery, before describing a new study that I conducted in order to test the courts' presumption.

III. The Criticism on the Courts' Reasoning: Evaluating the Behavioral Economic Approach to the Puffery Defense

A. The Difference between Homo Economicus and Real People

As described above, the courts view puffery statements as optimistic and vague statements that do not convey important information, and are thus immaterial because investors should, and in fact do, ignore these statements.

The assumption that puffery statements do not affect investment decisions is based on the courts' standard neo-classical economic view of investors as fully rational, or *homo economicus*. A fundamental principle of the neo-classical economic approach is that "all human behavior can be viewed as involving participants who maximize their utility from a stable set of preferences and accumulate an optimal amount of information and other inputs in a variety of markets."[108] In other words, people always make intelligent and informed decisions.

[107] *See*, *e.g.*, Padfield, *supra* note 48, at 357–59 (arguing that the puffery defense is contrary to empirical evidence about investor behavior and is contrary to investors' reliance on vague statements); Ivan L. Preston, *Puffery and Other "Loophole" Claims: How the Law's "Don't Ask, Don't Tell" Policy Condones Fraudulent Falsity in Advertising*, 18 J. L. & Com. 49, 82-83 (1998) (noting that "no behavioral studies have reported the finding, assumed by the law, that consumers typically see puffery or other loophole claims as meaningless"); Jennifer O'Hare, *supra* note 82 at 1721–22 (indicating specific factors in a securities transaction "that may allow a reasonable investor to trust a company's vague statement of corporate optimism.); Peter H. Huang, *supra* note 110 at 115 (arguing that "the puffery defense is flawed because vague, promotional, or hyperbolic statements can have real impact on moods and therefore should not be deemed immaterial as a matter of law"); Hoffman, *supra* note 8, at 1435 (arguing that the courts' assumption that puffery statements are ignored is "simply untrue"); Hoffman, *supra* note 29, at 588 ("Courts assume that individuals can hear a source saying two things – 'I express the following beliefs about the future' and 'Don't rely on anything I just said' – and make a rational decision about which statement is worthy of credence. This is nonsense."); *see also* Black, *supra* note 31, at 1507 ("The research from behavioral economics on cognitive failings has much to offer in rethinking the artificial construct of a 'reasonable investor' and its resulting lack of protection for investors, particularly unsophisticated retail investors.").

[108] Gary S. Becker, The Economic Approach to Human Behavior 14 (1976).

Indeed, if investors were to behave like *homo economicus*, they would not give weight to optimistic and vague statements that only aim to promote the purchase of stocks.[109] But do investors truly ignore puffery statements?

The study of behavioral economics challenges the assumption of human rationality by using other social sciences such as psychology and sociology, as well as biology and neuroscience. It explores the behavior of "real people," as opposed to the theoretical *homo economicus*, by emphasizing the complexity of human beings, their emotions, and the environment's effect on them.[110]

Research in behavioral economics shows that even subtle signals can affect our decision making. Psychology professor Daniel Kahneman suggests that these signals, most of which we are not aware of, are processed by what he calls "System 1" in the mind, which "operates automatically and quickly, with little or no effort and no sense of voluntary control."[111] System 1 is different from "System 2," which "allocates attention to the effortful mental activities that demand it, including complex computations."[112]

System 1, for example, automatically and unconsciously associates memories with words, a process that evokes emotions and sometimes expressions or other reactions.[113] System 1 also makes connections between unrelated words, for example, BANANA and VOMIT, to create a story that can affect not only the mind but also the body.[114]

According to behavioral economic research, "every perceivable signal can frame our decisions",[115] including the shape of a skin cream jar,[116] different aromas[117] and our own internal state of mind.[118] Changes in language can

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[109] *See* David A. Hoffman, *supra* note 8, at 1428 (mentioning the early economic analyses that could not explain why puffery statements would have an effect). There are, however, economic explanations for rationalizing people's reliance on puffery statements. One is that puffery statements may signal good qualities. *See* Gary S. Becker & Kevin M. Murphy, *A Simple Theory of Advertising as a Good or Bad*, 108 Q. J. Econ. 941, 956 (1993) ("[A]dvertised goods may have good qualities that are not observed by econometricians, as implied by the signaling literature."). Another explanation assumes heterogeneous beliefs among investors. Investors who do not rely on puffery statements may take such statements into account if there are investors who do rely on puffery statements. *See* Markus K. Brunnermeier & Martin Oehmke, *Bubbles, Financial Crises and Systemic Risk*, *in* vol. 2 Handbook of the Economics of Finance 1221, 1239-42 (George M. Constantinides, Milton Harris, & Rene M. Stultz eds., 2013) (describing models that rely on heterogeneous beliefs among investors to generate bubbles).

[110] *See* J. L. Baxter, Behavioral Foundations of Economics 6 (1993).

[111] Daniel Kahneman, Thinking, Fast and Slow 20 (2013). The terms were originally proposed by Keith Stanovich and Richard West. *See* Keith E. Stanovich & Richard F. West, *Individual Differences in Reasoning: Implications for the Rationality Debate*, 23 Behavioral & Brain Sciences 645, 658 (2000).

[112] Kahneman, *supra* note 111, at 21.

[113] *Id.* at 51.

[114] *Id.* at 50-51.

[115] Phil Barden, Decoded: The Science Behind Why We Buy 19 (2013).

[116] *See id.* at 19 (describing a cosmetic company that found that the type of jar of a new skin cream affected the score that people gave to the tested cream).

[117] *See id.* at 19-20 (describing an experiment that found that exposure to different kind of aromas affected people's willingness to help other people.)

also influence people's decision making. Take for example the following two statements given to patients about the survival odds of a heart operation:

> (1) Of one hundred patients who have this operation, ninety are alive after five years.
> (2) Of one hundred patients who have this operation, ten are dead after five years.

Numerous experiments have shown that people react very differently to these two statements despite the fact they convey the exact same information.[119] Similarly, studies have found that people are more likely to perform self-examinations for skin and breast cancer if they are told about the increased risk if they fail to do so, rather than the reduced risk if they do so.[120] As economics professor Richard Thaler and law professor Cass Sunstein explain:

> Framing works because people tend to be somewhat mindless, passive decision makers. Their Reflective System does not do the work that would be required to check and see whether reframing the questions would produce a different answer. One reason they don't do this is that they wouldn't know what to make of the contradiction. This implies that frames are powerful nudges, and must be selected with caution.[121]

Another study found that descriptive labels of food on a menu (e.g. "Traditional Cajun Red Beans with Rice") not only increased orders but also resulted in higher taste rates compared to the same food given only a generic label (e.g. "red beans with rice").[122]

But words are not alone in influencing human behavior through framing. Research shows that even font, style and color can affect people's choices, too.[123] These behavioral insights are a treasure trove for marketers.[124] Brands, design, packaging, language, and even social information are thus all important tools in the world of marketing.[125] The next section will focus on whether puffery statements have similar effects on consumers and investors.

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[118] *Id.* at 20.

[119] Richard H. Thaler & Cass R. Sunstein, Nudge: Improving Decisions About Health, Wealth, and Happiness 36 New Haven, CT: Yale University Press (2008).

[120] *Id.* at 157.

[121] *Id.* at 37.

[122] Brian Wansink, James Painter & Koert van Ittersum, *How Descriptive Menu Labels Influence Attitudes and Repatronage*, 29 Advances in Consumer Res. 168, 171 (2002).

[123] Kahneman, *supra* note 111 at 62-64 (showing that certain forms of writing have proven to be more persuasive than others).

[124] Barden, *supra* note 115 at 22 (stating that the "framing effect is crucial for marketing.").

[125] *Id.* at 46.

B. Existing Research about Puffery Statements

Studies that focus on puffery statements in the consumer domain present some convincing evidence that puffed claims may affect consumers' beliefs.

Business professor Morris Holbrook, for instance, exposed subjects to alternative versions of car ads—one version that employs factual, objective statements and one that employs evaluative, subjective statements. When asked whether the ad's claims were important and believable, the subjects' answers were not statistically different between the two versions of the ads, meaning that people did not discount puffery statements.[126]

In the early 1980s, a similar series of studies was conducted to determine whether puffery statements affected readership levels in magazine car ads.[127] The results indicated that puffery did not increase readership, illustrating that "consumers respond to puffery no differently than they do to fact claims."[128]

Advertising professors Bruce Vanden Bergh, and Leonard Reid also demonstrated that puffery claims were believable and persuasive. In their experiment, they showed advertisements for a pen to two groups of subjects. One group was shown ads with puffery overstating the pen's value, and the other was shown ads that underestimated the pen's value. They then gave the subjects the chance to use the pen and evaluate its actual quality firsthand, after which they were questioned. The researchers found that the print ad that employed puffery claims produced a negative change in the participants' evaluation of the ad, perception of the message's credibility, and intent to purchase the advertised pen. However, the ad that underestimated the pen's value produced a positive effect on these variables after subjects had tried the pen.[129]

Marketing researchers Terence Shimp and J. Thomas Yocum conducted a similar experiment with ads for soft drinks and found that "taste ratings, and repeat purchasing to a lesser degree, were inversely related to expectancy disconfirmation."[130] Contrary to these results, Marketing professors Micahel Kamins and Lawrence Marks found that only extreme degrees of

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[126] Morris B. Holbrook, *Beyond Attitude Structure: Toward the Information Determinants of Attitude*, 15 J. MKTG. RES., 545, 551 (1978).

[127] *See* Bruce G. Vanden Bergh & Leonard N.H. Reid, *Puffery and Magazine Ad Readership*, 44 J. MKTG 78 (1980); Bruce G. Vanden Bergh & Nan Bartlett, *Puffery and Readership of Magazine Ads*, 59 JOURNALISM Q. 645 (1982); Gary Kurzbard & Lawrence C. Soley, *Puffery and Industrial Advertising Readership and Evaluation*, *in* PROCEEDINGS OF THE 1984 CONVENTION OF THE AMERICAN ACADEMY OF ADVERTISING, 104 (Donald R. Glover ed. 1984)

[128] Preston, *supra* note 12, at 183.

[129] Bruce G. Vanden Bergh & Leonard N.H. Reid, *Effects of Product Puffery on Response to Print Advertisements*, 3 J. CURRENT ISSUES & RES. ADVERT. 123 (1980).

[130] Terence A. Shimp & J. Thomas Yocum, *Advertising Inputs and Psychophysical Judgments in Vending-Machine Retailing*, 58 J. RETAILING 95, 111 (1982).

puffery resulted in significant negative change in the evaluation and the intent to purchase. Moderate puffing did not have such negative changes.[131]

Marketing professor Herbert Rotfeld and advertising professor Kim Rotzoll exposed consumers to five ads containing puffed claims and then asked them whether they felt the ads stated or implied such claims and whether they felt such claims were true.[132] The researchers found that "the different literal puffery claims in the five commercials were communicated to an average 80.5% of the sample, and the claims implied by puffs were communicated to an average 44.7%."[133] A later study by these two researchers demonstrated, similar to other studies mentioned above, that puffed claims were perceived as equal to factual claims and were as likely to be believed.[134]

One study found that even false claims affected people's beliefs. Marketing professors Jerry Olson and Philip Dover exposed an experimental group to ads that included false explicit claims that a certain brand of coffee contained "no bitterness." The experimental group and a control group then tasted coffee brewed to create bitterness. The group that was exposed to the ads was more likely to believe that the coffee was not bitter, both before and after the taste test.[135]

Moreover, a recent study suggests the existence of visual puffery. Marketing researchers Mark Toncar and Marc Fetscherin found that "visual cues and imagery in the fragrance ads appear, under certain conditions, to result in product expectations that exceed actual product evaluations".[136]

As this brief survey of the literature shows, the investigation of puffery in advertising has found that consumers tend to believe puffery statements. But can these findings be implemented with respect to investor behavior in securities markets?

The literature that specifically focuses on puffery in securities cases is very limited. I am aware of only one study that aims to test whether investors deem puffery statements material to their investment decisions. Law professor Stefan Padfield conducted a survey that consisted of five fact pat-

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[131] Michael A. Kamins & Lawrence J. Marks, *Advertising Puffery: The Impact of Using Two-Sided Claims on Product Attitude and Purchase Intention*, 16 J. Advert. 6, 7 (1987).

[132] Herbert J. Rotfeld & Kim B. Rotzoll, *Is Advertising Puffery Believed?* 9 J. Advert. 16, 18 (1980).

[133] *Id.*

[134] Herbert J. Rotfeld & Kim B. Rotzoll, *Puffery vs. Fact Claims–Really Different?* 4 J. Current Issues & Res. Advert 85 (1981).

[135] Jerry C. Olson & Philip A. Dover, *Cognitive Effects of Deceptive Advertising*, 15 J. Mktg. Res. 29, 33–34 (1978). *Cf.* Barden, *supra* note 115, at 31–32 (describing an experiment where consumers reported vanilla pudding tasting like chocolate when it was colored brown and another where consumers who were told the decaffeinated coffee they were given was regular coffee experienced elevated heart rates, showing the role expectations play in our product experiences).

[136] Mark Toncar & Marc Fetscherin, *A study of visual puffery in fragrance advertising: Is the message sent stronger than the actual scent?* 46 Eur. J. Mktg. 52, 52 (2012).

terns involving disclosure about five different companies.[137] These fact patterns were based on real court cases in which certain statements were found to be puffery.[138] Each fact pattern highlighted a certain puffery statement, and the respondents were asked whether they would consider the statement important in deciding whether to buy the company's stock.[139] The results showed that "while the judges in the four surveyed cases concluded that no reasonable investor could find the statements challenged therein to be material because they constituted non-actionable puffery, between 33% and 84% of reasonable investors surveyed deemed the statements material."[140]

The primary respondents of this survey were college students[141] and only forty-five respondents were deemed reasonable investors.[142] This sample size is less than half the sample size required for statistically significant results within the relevant population. Thus, the experiment lacks the precision to provide reliable answers to the questions it is investigating. More importantly, the survey may answer the question of whether investors deem certain statements important when asked directly about such statements, but it does not answer a different question of whether investors are in fact influenced by puffery statements when making investment decisions.

C. *Puffery Experiment*

The purpose of my experiment is to fill some of the gaps regarding the effect of puffery statements on investors. Specifically, the experiment aims to test the courts' presumption that puffery statements do not affect reasonable investors' decision making and thus can be disregarded as immaterial.

My initial belief was that investors do pay attention to puffery statements, or at least to some types of puffery statements. This intuition is supported by a rich literature in behavioral economics indicating that even subtle changes in language and framing can affect people's decision-making and by studies showing that puffery affects consumers' beliefs, as described above.

In addition, when comparing puffery statements in the consumer arena, such as "probably the best beer in the world"[143] and puffery statements in the securities arena, such as that a company has adequate liquidity to meet its obligations,[144] those in the latter category seem more believable. Since

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137 *See* Padfield, *supra* note 48, at 366-67.
138 *Id*. at 367–70.
139 *Id*. at 378–81.
140 *Id*. at 341.
141 *Id*. at 365.
142 *Id.*
143 *See* Carlsberg Beer Commercial, YOUTUBE, https://www.youtube.com/watch?v=bAR-XDPiJ50 (last visited Jan. 19, 2015).
144 *See* SRM Global Fund Ltd. P'ship v. Countrywide Fin. Corp., 448 Fed. Appx. 116, 117–18 (2d Cir. 2011).

studies indicate that consumers often rely on puffery statements, it would not be surprising if investors relied on them, too.

Accordingly, I expected investors, especially non-sophisticated investors, given the opportunity to allocate a pool of investment capital across a range of companies, to invest more money in companies that used puffery statements in their corporate disclosures than in companies that did not use such statements.

1. Methodology

I chose to conduct a between-subject experiment, designed as a web-based survey, using the Qualtrics platform. The eligibility to participate in the survey was determined based on a screening question designed by Qualtrics, which indicated that the respondents had an interest in investing. Those who were not investors, meaning those who do not invest in securities such as stocks or bonds outside their 401(k), either with or without the assistance of a financial advisor, were screened out of the survey. I used this definition of an investor since, as mentioned above, the courts' definition of a "reasonable investor" is broad and inconsistent.

The survey also included questions that aimed to check whether each respondent was a sophisticated investor[145] and/or an accredited investor[146]; whether each investor invests with or without the assistance of a financial advisor; and whether each investor reads financial news or reports. The survey also included measurement of demographic variables: gender, age and education.

The survey provided information about four different companies (A, B, C and D). Each investor was asked to allocate a hypothetical investment sum of $10,000 among these companies. The information provided was based on the facts from four of the federal court cases that I analyzed in Part II above. I changed the names of the companies and other identifying information to mitigate a potential preconception bias.

Below are summaries of the courts' decision on which I based the corporate disclosure in the survey:

Company A – Vidi Games, Inc.

The first case is *Zerger v. Midway Games, Inc.*,[147] before the United States District Court for the Northern District of Illinois. The plaintiffs

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[145] *See* Fast Answers Rule 506 of Regulation D, SEC, https://www.sec.gov/answers/rule506.htm (last visited Apr, 8 2016) (describing sophistication as having "sufficient knowledge and experience in financial and business matters to . . . [be] capable of evaluating the merits and risks of the prospective investment").

[146] Accredited investors under Rule 501 of Regulation D include natural persons with a $1 million net worth or annual income that exceeds $200,000—or $300,000 combined with spousal income—in each of the two most recent years. 17 C.F.R. § 230.501(a).

[147] Zerger v. Midway Games, Inc., 2009 U.S. Dist. LEXIS 96872.

brought a class-action suit against several executives of Midway Games, Inc., "alleging that the executives artificially inflated the market value of Midway stock by deceiving the public about the company's financial position."[148] One category of statements alleged to be misleading related to Midway's acquisition of Holdings Pty. Ltd., a competitor in the interactive-entertainment industry. With respect to this acquisition, David F. Zucker, one of the defendants, made the following allegedly misleading comments:

> This transaction is consistent with our strategy of adding depth to our internal product development organization and strengthening our ability to deliver high-quality, compelling and commercially successful content for current and future systems. Ratbag brings to Midway a rare combination of development expertise in driving and on-foot combat that they are incorporation into our games now in development. . . . We believe with [sic] this is an opportunity to establish our development presence [in] the midst of the great pool of talent in Australia, and bring to Midway technical expertise and experience that will specifically help facilitate our development of multi-genre action games. We look forward to announcing the projects that our new Midway Studios Australia is developing.[149]

The court dismissed the plaintiffs' claims, holding that these statements "fall squarely within the category of '[v]ague statements about industry leadership and unquantified growth [that] are classic puffery, and are generally not actionable.' "[150]

Company B – Techo, Inc.

The second case is *Carlucci v. Han*,[151] before the United States District Court for the Eastern District of Virginia. Plaintiff Frank Carlucci III alleged that he had invested in Envion, Inc., in reliance on false representations of the defendant, Michael Han. The alleged misrepresentations included statements that "certain high-profile investors, including Warren Buffet, Bill Gates, Dow Chemical, Morgan Stanley, and Goldman Sachs, were 'interested in' investing in Envion"[152] and that "former President Bill Clinton had agreed to become affiliated with Envion, possibly as a member of its board of directors."[153] The court found these statements to be mere puffery and hence non-actionable.[154]

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[148] *Id.* at 2.
[149] *Id.* at 17–18 .
[150] *Id.* at 19.
[151] Carlucci v. Han, 886 F. Supp. 2d 497 (E.D. Va. 2012)
[152] *Id.* at 522.
[153] *Id.*
[154] *Id.* at 523.

Company C – National Home Loans, Inc.

The third case is *Footbridge Ltd. Trust v. Countrywide Home Loans, Inc.*,[155] before the United States District Court for the Southern District of New York. The plaintiffs, Footbridge Limited Trust and OHP Opportunity Limited Trust, filed a lawsuit in connection with their purchase of mortgage-backed securities through public offerings from defendant Countrywide Home Loans. The plaintiffs alleged that the "defendants made . . . material misrepresentations and omissions in the offering documents and other various public statements to plaintiffs."[156] The plaintiffs specifically alleged that defendant David Sambol, who "held numerous management positions in Countrywide companies,"[157] made the following misrepresentation: "we have an intense and ongoing focus on share growth while at the same time maintaining a very strong internal control environment and what we believe is a best-of-class governance. . . . [O]ur culture is also characterized by a very high degree of ethics and integrity in everything we do."[158] The court dismissed the claim, holding that "[s]tatements about corporate culture and integrity are typically considered to be inactionable puffery."[159]

Company D - Mednic, Inc.

The fourth and final case is *In re Medtronic, Inc.*,[160] before the United States District Court for the District of Minnesota. Investors in Medtronic, Inc., ("Medtronic") filed a class action lawsuit against Medtronic, a medical device manufacturer. The plaintiffs alleged "corporate and individual malfeasance behind the company's stock-price collapse in 2007."[161] This collapse was related to problems with a medical product developed by Medtronic. The plaintiffs claimed that several statements made by Medtronic during the class period were misleading, including the statement that Medtronic was "well positioned in some of the most attractive worldwide markets, and [had a] top flight leadership team that [would] help take Medtronic to the next level."[162] The court found such statements to be mere puffery, noting that "statements containing simple economic projections, expressions of optimism, and other puffery are insufficient to establish securities fraud."[163]

[155] Footbridge Ltd. Trust v. Countrywide Home Loans, Inc., 2010 U.S. Dist. LEXIS 102134.
[156] *Id* at 9–10.
[157] *Id.* at 6.
[158] *Id.* at 66.
[159] *Id.* at 66–67.
[160] *In re* Medtronic, Inc., Sec. Litig., 618 F. Supp. 2d 1016 (D. Minn. 2009)
[161] *Id.* at 1019.
[162] *Id.* at 1031.
[163] *Id.*

Based on these court cases, I created four disclosures in the form of a short press release or a summary of information provided by the companies' representatives. Each disclosure was relatively short in order to maintain the participants' attention.

Using the Qualtrics survey design software, I designed a stream-flow that randomly allocated participants into one of four groups, each consisting of approximately 110 people.[164] The groups were given varied types of investment information: Group 1 was exposed to four different corporate disclosures that all included puffery statements; Group 2 was exposed to four different corporate disclosures that did not include puffery statements; and Groups 3 and 4 were each exposed to two disclosures that included puffery statements and two disclosures that did not include puffery statements. The positive and neutral control groups (Groups 1 and 2, respectively) were included in order to mitigate any bias effect, since companies of different sizes from different industries were used.

The following table summarizes the type of statements that were included in each of the four corporate disclosures that were shown to each of the four groups. Corporate disclosures that include puffery statements are denoted (+) and corporate disclosures that do not include puffery statements (but instead include neutral statements) are denoted (-). In each group, the order in which the four disclosures were displayed was randomized.

TABLE 1: PRESENTATION OF CORPORATE DISCLOSURES PROVIDED TO RESPONDENTS IN GROUPS 1–4

	Group 1 (positive control)	*Group 2 (neutral control)*	*Group 3 (mixed cases)*	*Group 4 (mixed cases)*
Vidi Games, Inc. (A)	+	-	+	-
Techo, Inc. (B)	+	-	+	-
National Home Loans, Inc. (C)	+	-	-	+
Mednic, Inc. (D)	+	-	-	+

Appendix A shows the eight types of corporate disclosures that were used in the survey, four that include puffery statements and four that do not include puffery statements. Each corporate disclosure that includes puffery statements is similar in structure and length to the parallel corporate disclosure that does not include puffery statements. A copy of one version of the survey appears in Appendix B.

My hypotheses were as follows:

Hypothesis 1 – Investment allocations will be non-uniform among companies.

[164] The group size was determined based on a power calculation that assumes: a Z-score of 1.96 (95% confidence interval), standard deviation of 50%, and a margin of error of ± 5%.

Differences in the investment allocation among companies A, B, C and D were tested in the neutral control group. The null hypothesis that investment allocations would be uniform among the four companies was assumed, allowing a test for the alternative hypothesis that the investment allocations would be different among the four companies. The alternative hypothesis was guided by the belief that investors have preferences for certain industries and sizes of companies. For example, in light of the subprime mortgage crisis of 2007–2009, I hypothesized that investors would allocate a relatively low amount of money to National Home Loans, Inc. To test this hypothesis, I used both parametric tests and non-parametric tests (an ANOVA test for multiple groups with post-hoc Tukey's comparisons), since I was unable to evaluate whether the distribution was normal.

Hypothesis 2 – There will be no differences in investment allocations between the control groups (Groups 1 and 2), while there will be differences in investment allocations between Groups 3 and 4 (an increase in the total sums invested in companies that use puffery statements).

Comparisons between all of the groups were conducted regarding the investment allocations of each company, using an ANOVA test for multiple groups with post-hoc Tukey's comparisons at a significance level of 95%. I utilized the null hypothesis that investment allocations would be different between the control groups, thereby allowing a test of the alternative hypothesis that investment allocations would be uniform between control groups. Because each of the companies were given similar puffery advantages in Group 1, I expected that any effect of puffery statements would be mitigated. In other words, I hypothesized that the investment allocations of companies A, B, C and D would not be different between the positive control (Group 1) and the neutral control (Group 2).

The corollary to the above hypothesis is that there will be differences in investment allocations between Groups 3 and 4. When participants are exposed to a mixture of corporate disclosures, some with and some without puffery, participants will favor investments in companies that use puffery statements over companies that do not use puffery statements (the alternative hypothesis).

The above-mentioned analyses were then broken down further into subgroups based on sophistication, gender, age, and education.

Hypothesis 3 – The puffery effect under hypothesis 2 will diminish when the analysis is conducted with sophisticated investors.

For sophisticated versus unsophisticated investors, I hypothesized that unsophisticated investors are affected by puffery statements, while sophisticated investors disregard such statements. Differences were tested using Student's T-tests and Mann-Whitney U Tests at a significance level of 95%.

Hypothesis 4 – There will be no differences in the puffery effect under hypothesis 2 with respect to respondents' sex.

For male versus female participants, I hypothesized that both groups would be affected by puffery statements regardless of their sex, testing this theory as the alternative hypothesis. Differences were tested using Student's T-Tests and Mann-Whitney U Tests at a significance level of 95%.

The effects of age and education were not tested because the expected number of responses in each group would be of insufficient power. Instead, general observations and trends are described.

2. *Results*

A total of 465 responses were analyzed. Due to the screening question, all of the respondents were investors. The demographics and main characteristics of the respondents' population are listed in Table 2.

195 respondents (42%) invest with the assistance of an investment advisor, 163 respondents (35%) invest without the assistance of an investment advisor, and 107 respondents (23%) invest both with and without the assistance of an investment advisor. The average degree of involvement in the investment decisions among those who invest only with the assistance of an investment advisor was 5.04 ± 3.05 (mean ± standard deviation), on a scale of 0 to 10 (0 meaning no involvement).

292 out of 465 respondents (63%) indicated that they read financial news, companies' reports or analysts' reports.

230 out of 465 respondents (49%) indicated that they were sophisticated, meaning that they believed that they had such knowledge and experience in financial and business matters that they were capable of evaluating the merits and risks of a prospective investment.[165]

Only 32 out of 465 respondents (7%) were accredited investors.[166]

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[165] This is the definition of sophistication under Rule 506 of Regulation D (*See* 17 C.F.R. § 230.506).

[166] Accredited investors under Rule 501 of Regulation D include natural persons with a $1 million net worth or annual income that exceeds $200,000—or $300,000 combined with spousal income—in each of the two most recent years (see 17 C.F.R. § 230.501(a)).

TABLE 2: SUMMARY STATISTICS FOR RESPONDENTS' SEX, AGE, EDUCATION, NET WORTH AND INCOME

	N	%
Sex:		
Men	239	51%
Women	226	49%
Age group:		
18–25	12	3%
26–39	102	22%
40–59	214	46%
60+	137	30%
Education:		
Some high school	3	1%
High school graduate	46	10%
Some college	113	24%
College graduate	197	42%
Some post graduate work	26	6%
Post graduate degree	80	17%
Individual net worth ($):		
<$200k	245	53%
$201k–500k	148	32%
$501k–1m	49	11%
>$1m	22	5%
Individual income ($):		
<$25k	61	13%
$25k–50k	142	30%
$51k–100k	175	38%
$101k–150k	65	14%
$151k–200k	9	2%
>$200k	13	3%
Combined income ($):		
Single (not relevant)	115	25%
<$50k	54	12%
$51k–100k	171	37%
$101k–150k	67	14%
$151k–200k	22	5%
$201k–250k	22	5%
$250k–300k	7	1%
>$300k	7	1%
Accredited investors:	32	7%
Observations	465	

The investment allocation among the four companies was found to be non-uniform (see Table 3). The 124 respondents in the neutral control group (Group 2) allocated similar investment amounts to Vidi Games, Inc. and Techo, Inc. ($2,637 and $2,652, respectively), but invested less in National Home Loans, Inc. ($1,258) and more in Mednic, Inc. ($3,453). These trends remained consistent throughout the groups. An ANOVA analysis of the investment allocation to each company proved that the differences in the investment amount allocated towards each company were significant among all comparisons ($p<0.05$), except between Vidi Games Inc., and Techo, Inc.

(p=1.00). Thus, the alternative hypothesis was retained with respect to investment allocations to the different companies.

TABLE 3: INVESTMENT ALLOCATION RESULTS (AVERAGE AND STANDARD ERROR OF THE MEAN (SE-MEAN) FOR THE FOUR COMPANIES AND FOUR TEST GROUPS USED IN THE STUDY

	Vidi Games Inc.	**Techo, Inc.**	**National Home Loans, Inc.**	**Mednic, Inc.**
Group 1				
N=112				
Mean	$2,381	$2,439	$1,409	$3,771
SE-Mean	$166	$193	$144	$233
Group 2				
N=124				
Mean	$2,637	$2,652	$1,258	$3,453
SE-Mean	$208	$200	$121	$239
Group 3				
N=110				
Mean	$2,205	$2,974	$1,407	$3,413
SE-Mean	$167	$220	$141	$223
Group 4				
N=119				
Mean	$2,538	$2,240	$1,556	$3,666
SE-Mean	$178	$162	$134	$226

Focusing on each company individually, a multiple group comparison of the investment allocation across groups 1, 2, 3 and 4 was conducted using a one-way ANOVA test (Table 4). This analysis showed a statistically significant difference only for Techo, Inc. groups (p = 0.05). A Tukey post-hoc test revealed that the investment allocation in Techo, Inc. was significantly higher in group 3 ($2,974 ± 220) than in group 4 ($2,240 ± 162, p = 0.04). There were no statistically significant differences in any of the other companies between any of the groups (see Table 4). For National Home Loans, Inc. and Mednic, Inc., there was a slight tendency to increase allocation compared to the neutral condition, but the difference was not statistically significant. The opposite tendency was seen for Vidi Games Inc., but again, this was not statistically significant.

TABLE 4: RESULTS OF A MULTIPLE GROUP ANOVA COMPARISON OF INVESTMENT ALLOCATION IN EACH OF THE FOUR COMPANIES, AND POST-HOC TUKEY ANALYSIS

Company				p value
Vidi Games Inc.				0.36
Techo, Inc.				0.05**
National Home Loans, Inc.				0.46
Mednic, Inc.				0.65
		Post-hoc Tukey Test Results		
Techo, Inc.	Group 1	Group 2	Group 3	Group 4
Group 1	—	0.86	0.23	0.89
Group 2	—		0.64	0.42
Group 3	—			0.04**
Group 4	—	—	—	—

** Significant at 5%

Additional analyses were performed on subgroups within the main group of investors. Subsequent analyses were focused on the investment allocations in the mixed groups, Groups 3 and 4, where a significant effect was detected in the primary analysis.

When the population was broken down into two groups based on sophistication, the aforementioned difference in the investment allocation for Techo, Inc., associated with puffery, was still present. However, it was only found to be significant in the non-sophisticated investor group. For this group, the T-test showed a statistically significant effect at the $p=0.05$ level while the Mann-Whitney test did not show a significant effect. This difference could be explained by the two-fold decrease in group size when running this analysis. None of the other companies were found to behave differently from the general cohort, and thus the alternative hypothesis was rejected with respect to sophistication for Companies A, C and D, and retained with respect to Company B.

TABLE 5: INVESTMENT ALLOCATIONS IN GROUPS 3 AND 4 (MEAN ± STANDARD ERROR OF THE MEAN) WHEN DIVIDED INTO GROUPS OF SOPHISTICATED AND UNSOPHISTICATED INVESTORS, AND THEIR COMPARISON USING STATISTICAL TESTS

Sophisticated investors						
Company	**Group 3 N=47**		**Group 4 N=63**		**T-Test**	**Mann-Whitney Test**
	Mean	*S. Error*	*Mean*	*S. Error*	*p value*	*p value*
Vidi Games Inc.	$2,370	$263	$2,738	$220	0.28	0.22
Techo, Inc.	$2,757	$291	$2,159	$215	0.09 *	0.14
Nat'l Home Loans, Inc.	$1,262	$153	$1,440	$158	0.43	0.44
Mednic, Inc.	$3,611	$359	$3,663	$329	0.91	0.92

Non-Sophisticated investors

Company	Group 3 N=63		Group 4 N=56		T-Test	Mann-Whitney Test
	Mean	*S. Error*	*Mean*	*S. Error*	*p value*	*p value*
Vidi Games Inc.	$2,083	$217	$2,313	$284	0.52	0.81
Techo, Inc.	$3,136	$317	$2,330	$248	0.05**	0.12
National Home Loans, Inc.	$1,516	$218	$1,688	$222	0.58	0.49
Mednic, Inc.	$3,266	$285	$3,670	$310	0.34	0.22

* Significant at 10%
** Significant at 5%

When Groups 3 and 4 were divided according to the respondents' sex, the effect of puffery became non-significant among all of the companies for female investors, while remaining present for the group of male respondents with respect to Techo, Inc. (p=0.05, according to both T-test and Mann-Whitney test.) One could interpret this trend to mean that female investors are less sensitive to puffery than male investors.

Table 6: Investment Allocations in Groups 3 and 4 (Mean ± Standard Error of the Mean) When Divided into Groups of Male and Female Investors, and Their Comparison Using Statistical Tests

Male investors

Company	Group 3 N=51		Group 4 N=68		T-Test	Mann-Whitney Test
	Mean	*S. Error*	*Mean*	*S. Error*	*p value*	*p value*
Vidi Games Inc.	$1,978	$251	$2,566	$252	0.11	0.09*
Techo, Inc.	$3,424	$358	$2,191	$192	0.02**	0.01***
Nat'l Home Loans, Inc.	$1,427	$204	$1,672	$173	0.36	0.24
Mednic, Inc.	$3,171	$347	$3,571	$299	0.38	0.36

Female investors

Company	Group 3 N=59		Group 4 N=51		T-Test	Mann-Whitney Test
	Mean	*S. Error*	*Mean*	*S. Error*	*p value*	*p value*
Vidi Games Inc.	$2,402	$223	$2,500	$247	0.77	0.73
Techo, Inc.	$2,586	$261	$2,304	$281	0.46	0.44
National Home Loans, Inc.	$1,390	$196	$1,402	$210	0.97	0.95
Mednic, Inc.	$3,623	$289	$3,794	$348	0.70	0.63

* Significant at 10%
** Significant at 5%
*** Significant at 1%

Further divisions according to age and level of education confirmed that statistical analysis of the results would not be feasible due to a low power. The number of respondents in each age group is presented in Table 7 and for each education level in Table 8.

To increase the number of respondents in the education level subgroups, respondents with an education level of some high school were combined with respondents who completed high school; respondents who completed some college studies were combined with respondents who graduated college; and respondents who completed some post graduate studies were combined with respondents who completed their post graduate studies. The trends for each of the Companies A, B, C, and D are presented in Figures 1–4 based on age and in Figures 5–8 based on education level.

Investors in Techo, Inc. allocated the same amount of investment, regardless of their age. Throughout all age groups, respondents exposed to puffery statements allocated more towards this company than those who were not. Contrary to this finding, older investors seem to invest more in Mednic, Inc. and less in National Home Loans, Inc. The investment allocation ranges of those investors exposed to puffery statements and those who are not overlap to a great extent in both groups, further supporting the previous finding that puffery does not play a key role on their decision making. The group of oldest respondents (60+) are the exception in this respect, since they increase their investment allocation to Mednic, Inc. under the influence of puffery, and the ranges do not overlap. Interestingly, investors in Vidi Games, Inc. show a trend contrary to expectations. While investors exposed to the company's disclosure that does not include puffery statements tend to invest less in this company as they turn older, those exposed to puffery statements remain consistent in their investment allocation to the company. Thus, for respondents less than 40, there seems to be a significant difference against the puffery, whereas for older investors the allocation ranges become undistinguishable.

Table 7: Number of Respondents in Each Age Group for Participants Who Were Allocated to Groups 3 and 4

	Age			
	18–25	**26–39**	**40–59**	**60+**
Group 3	2	34	45	29
Group 4	4	23	54	38

Table 8: Number of Respondents in Each Education Level for Participants who Were Allocated to Groups 3 and 4

Highest Education Level Reached

	Some high school	High school	Some college	College	Some post grad	Post grad
Group 3	2	10	22	50	5	21
Group 4	1	15	31	48	7	17

FIGURE 1: INVESTMENT ALLOCATION (MEAN ± STANDARD ERROR OF THE MEAN) FOR COMPANY A (VIDI GAMES, INC.) IN GROUPS 3 AND 4, ACCORDING TO RESPONDENTS' AGES

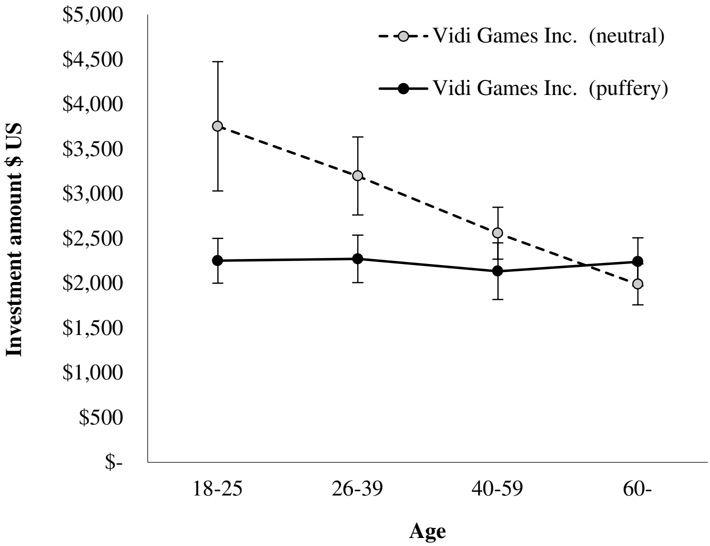


FIGURE 2: INVESTMENT ALLOCATION (MEAN ± STANDARD ERROR OF THE MEAN) FOR COMPANY B (TECHO, INC.) IN GROUPS 3 AND 4, ACCORDING TO RESPONDENTS' AGES

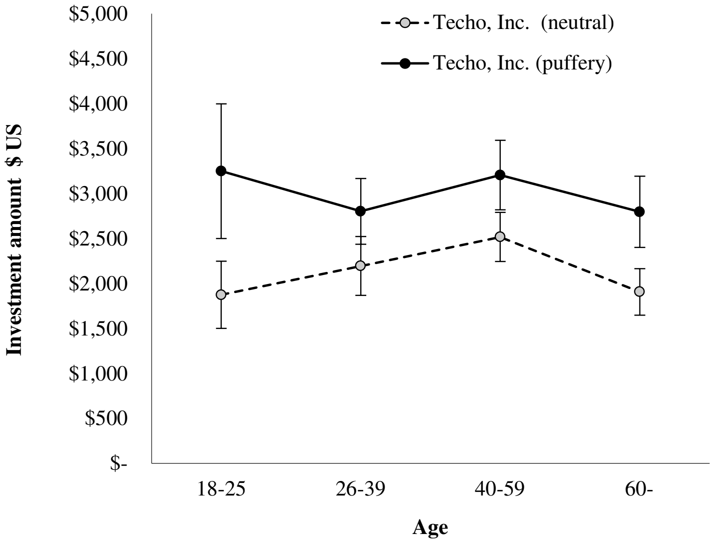


FIGURE 3: INVESTMENT ALLOCATION (MEAN ± STANDARD ERROR OF THE MEAN) FOR COMPANY C (NATIONAL HOME LOANS, INC.) IN GROUPS 3 AND 4, ACCORDING TO RESPONDENTS' AGES

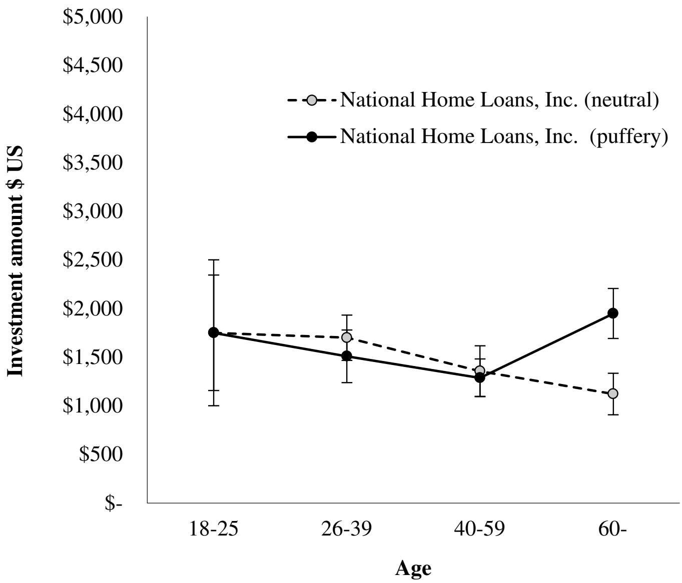
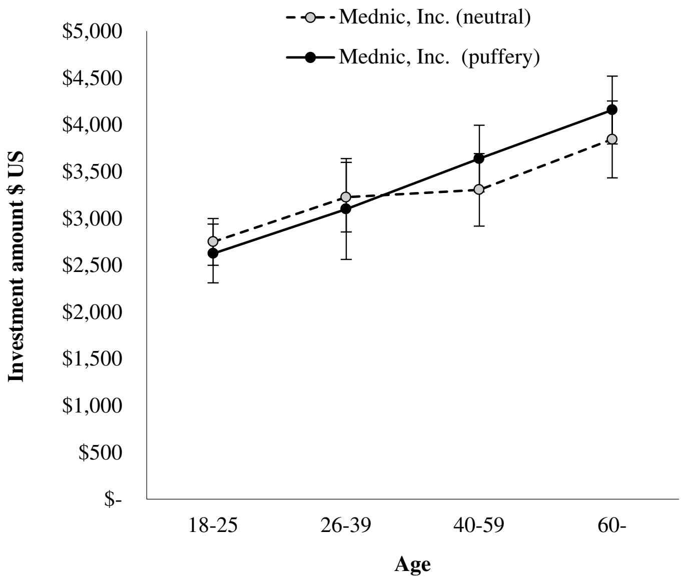


FIGURE 4: INVESTMENT ALLOCATION (MEAN ± STANDARD ERROR OF THE MEAN) FOR COMPANY D (MEDNIC, INC.) IN GROUPS 3 AND 4, ACCORDING TO RESPONDENTS' AGES



The representation of investment allocation based on the respondents' education levels hints to an effect, which would need to be studied further. For both Techo, Inc. and National Home Loans, Inc., the ranges of investment allocation tend to converge in relation to the respondents' level of education. In both groups, high-school level education shows the biggest difference in investment allocation in favor of the companies' disclosures containing puffery. The more educated the investors are, the less likely there will be differences in their allocations as a group.

Investors in Mednic, Inc. and Vidi Games, Inc. generally invest in the same patterns for all education levels, and the ranges overlap between cases that include puffery statements and cases that do not include puffery statements. The exception here is the graduate school educated group in Vidi Games Inc., who tend to favor the companies more without puffery statements.

FIGURE 5: INVESTMENT ALLOCATION (MEAN ± STANDARD ERROR OF THE MEAN) FOR COMPANY A (VIDI GAMES, INC.) IN GROUPS 3 AND 4, ACCORDING TO RESPONDENTS' HIGHEST LEVEL OF EDUCATION

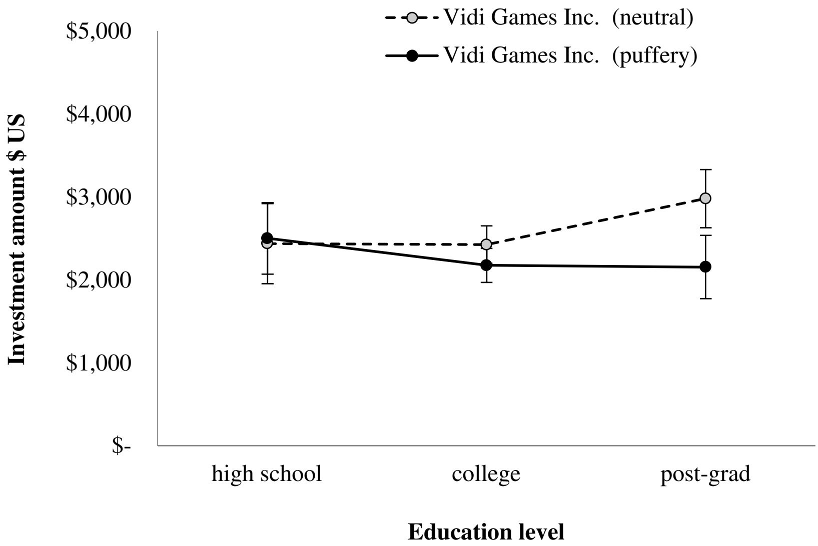


FIGURE 6: INVESTMENT ALLOCATION (MEAN ± STANDARD ERROR OF THE MEAN) FOR COMPANY B (TECHO, INC.) IN GROUPS 3 AND 4, ACCORDING TO RESPONDENTS' HIGHEST LEVEL OF EDUCATION

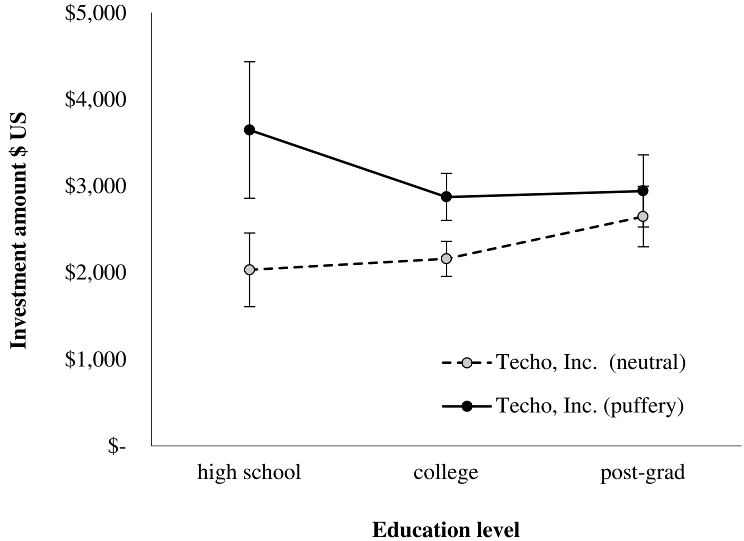


Figure 7: Investment Allocation (Mean ± Standard Error of the Mean) for Company C (National Home Loans, Inc.) in Groups 3 and 4, According to Respondents' Highest Level of Education

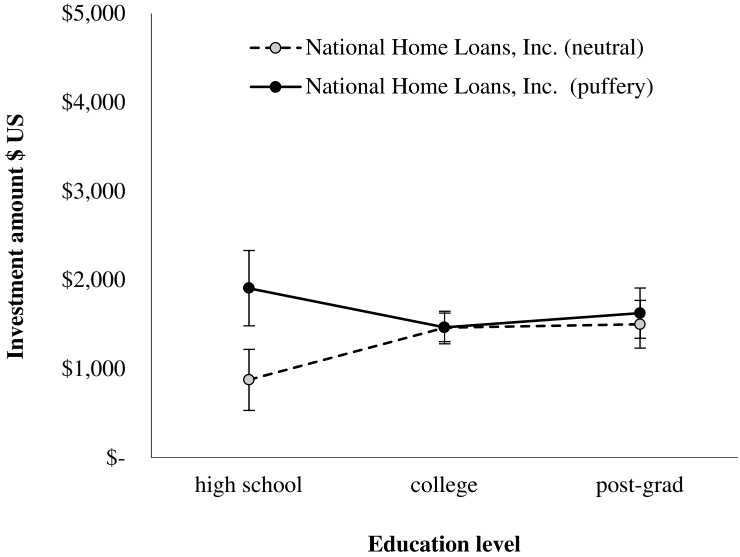
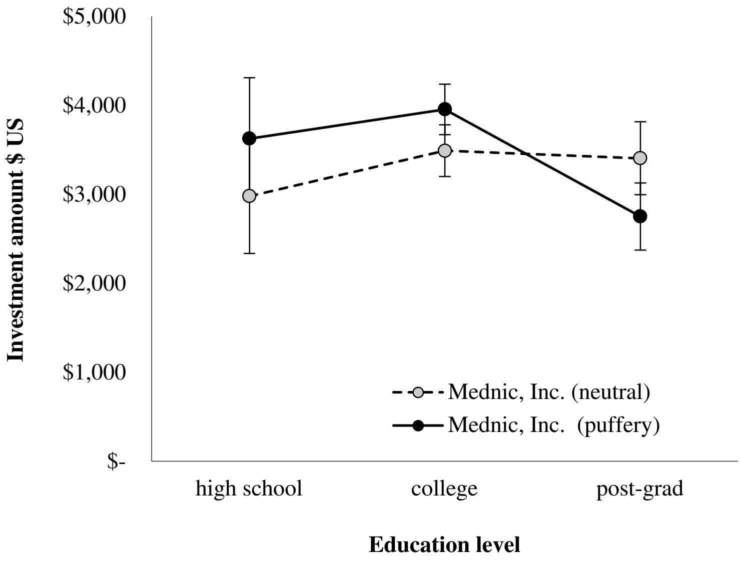


Figure 8: Investment Allocation (Mean ± Standard Error of the Mean) for Company D (Mednic, Inc.) in Groups 3 and 4, According to Respondents' Higher Level of Education



3. *Discussion*

As one might expect, investors in the neutral control group (Group 2) did not evenly allocate their total hypothetical investment among the four different companies. If each company was considered equal in the eyes of the investors, the mean investment would distribute equally among the companies and lie around $2,500. While this is the case for Companies A and B in both control groups (Groups 1 and 2), investments in Company C were approximately $1,000 lower and investments in Company D were approximately $1,000 higher. The uneven allocation emanates from the differences in industry and size among the companies. As can be understood from the four corporate disclosures, Vidi Games, Inc. is a large interactive entertainment software company; Techo, Inc. is a smaller technology company that aims to convert plastic waste into oil; National Home Loans, Inc. is engaged in the mortgage banking business; and Mednic, Inc. is a large, leading medical technology company.

The memory of the 2007 to 2009 subprime mortgage crisis–still fresh in investors' minds, deterring them from taking associated risks–can explain the smaller mean investment amount in National Home Loans, Inc. The larger mean investment amount in Mednic, Inc. can be explained by the robust demand for medical technology products in recent years and the steady growth in the medical technology sector.[167] The remaining companies, Vidi Games, Inc. and Techo Inc., are likely portrayed as neutral. Investors neither favor nor disfavor them in the hypothetical pool of companies.

As expected, there were no differences in the investment allocations between the control groups (Groups 1 and 2). The allocations were similar because respondents in both control groups: (1) were presented with the same four companies; (2) were presented with corporate disclosures containing the same level of puffery statements (i.e., puffery statements were either included in all or none of the disclosures); and (3) were required to invest all of their investment total in one or multiple companies.

When comparing the mixed groups (Group 3 and 4), the investment allocations for Techo, Inc. increased significantly with the puffery statements, but did not substantially change for the other three companies. This raises the question of why puffery statements only influenced investors' allocations in the two mixed groups for Techo, Inc.

A possible answer to this question is that investors tend to discount puffery statements when they appear in all corporate disclosures. Only when puffery statements appear in some corporate disclosures do they draw enough attention to affect investors' decision making. In reality, some com-

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[167] *See, e.g.*, Ernst and Young, *Pulse: medical technology report 2014*, http://www.ey.com/GL/en/Industries/Life-Sciences/EY-pulse-medical-technology-report-2014 (discussing, *inter alia*, the increase in revenues in the medical technology sector in 2013).

panies use puffery statements and others do not; this fact can be used as an advantage.

I believe that the explanation for the second question regarding Techo Inc. lies in the combination of two factors: (1) the type of puffery statements that each corporate disclosure included and (2) the initial bias towards (or against) the company or sector.

The puffery statements in Vidi Games, Inc.'s disclosure are quotes from the company's senior management, including the President and CEO:

> Vidi's President and Chief Executive Officer, John A. Taylor, commented, "This transaction is consistent with our strategy of adding depth to our internal product development organization and strengthening our ability to deliver high-quality, compelling and commercially successful content for current and future systems. InterGame brings to Vidi a rare combination of development expertise in driving and on-foot combat that they are incorporating into our games now in development."
>
> Vidi's Senior Vice President of Worldwide Studios, Sam Smith, said, "We are working closely with InterGame in one of our key titles for next year. We believe this is an opportunity to establish our development presence in the midst of the great pool of talent in Australia, and bring to Vidi technical expertise and experience that will specifically help facilitate our development of multi-genre action games. We look forward to announcing the projects that our new Vidi Studios Australia is developing."

These puffery statements are relatively weak, which can explain the respondents' investment allocations.

The puffery statements in the disclosure of Mednic, Inc. also include a quote by the chairman and CEO of the company saying, "We are well positioned in some of the most attractive worldwide markets, and we have a top flight leadership team that will help take Mednic to the next level as the world's leading medical technology company." These statements are also relatively weak, especially coming from the CEO in an attempt to spread optimism about the company's recent financial results.

The puffery statements included in the National Home Loans, Inc. disclosure were general statements of optimism about the company's "very strong internal control environment," "best-of-class governance," and "very high degree of ethics."

In contrast to these relatively weak puffery statements, the statements in the disclosure of Techo, Inc. seem much stronger, indicating that the company "had communicated with numerous other investors who were interested in investing in Techo, including Warren Buffet, Bill Gates, Dow Chemical, Morgan Stanley, and Goldman Sachs[,]" and that the "[f]ormer President Bill Clinton agreed to affiliate himself with Techo, possibly as a member of its board of directors."

These puffery statements are more specific and sound like statements of fact, as opposed to mere beliefs or opinions in other three companies' puffery statements. In addition, it may appear from these statements that the former president Bill Clinton, a well-known figure, has endorsed Techo, Inc., potentially drawing more attention than the other puffery statements.[168] As the results show, puffery statements of such strong nature affect investors' investment decisions.

Another factor that can explain the influence of puffery only with respect to Techo, Inc. relates to the type of companies that were described in the survey. As shown in the control arms of this study, investors perceive some companies as being more attractive than others. While Vidi Games, Inc. and Techo, Inc. may seem neutral in their appeal, Mednic, Inc. would be clearly biased against National Home Loans, Inc., potentially overshadowing the effect of puffery statements more than a company towards which the investor has no prejudice. Furthermore, since investment allocations to Mednic Inc. and National Home Loans, Inc. are towards the upper and lower ends of the scale, it is harder to bring about a significant change in their allocations because it would defy the principle of risk minimization through diversification.

The research suggests that even strong puffery statements may not influence sophisticated investors, as in the case of Techo, Inc. These results correspond with other studies that find that cognitive abilities can diminish investors' judgment errors.[169]

Dividing the population into two groups reduces the power of the statistical analysis and thus requires additional work to further establish these findings. The need for corroboration is especially true as the respondents had to judge for themselves whether they were considered sophisticated, and it may be the case that some respondents overestimated their knowledge and experience in financial and business matters.[170]

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[168] Research shows that celebrity endorsements can be persuasive. *See* HEATHER BUTTLE, JANE E. RAYONE & SHAI DANZINGER, *Do Famous Faces Capture Attention?*, 27 ADVANCES IN CONSUMER RES. 245 (2000) (showing that celebrity endorsement increases the attention paid to an ad); GEORGE E. BELCH & MICHAEL A. BELCH, ADVERTISING AND PROMOTION: AN INTEGRATED MARKETING COMMUNICATIONS PERSPECTIVE, New York, NY: The McGraw Hill Companies, Inc. 172, 177 (2007) (discussing the impact of celebrity endorsement and the factors that marketers must consider when choosing a celebrity endorser, including the "celebrity's match with the target audience and the product/service or brand").

[169] *See* Brad Barber & Terrance Odean, *The Behavior of Individual Investors* (2011), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1872211 (referring to papers that suggest that "cognitive abilities play an important role in investor outcomes," but concluding that "smarter investors outperform others . . . mak[ing] good stock picks, but only good enough to cover their trading costs").

[170] Investors, and particularly men, tend to be overconfident. *See, e.g.*, GARY BELSKY & THOMAS GILOVICH, WHY SMART PEOPLE MAKE BIG MONEY MISTAKES AND HOW TO CORRECT THEM 155–82 (2010) (referring to overconfidence as "the ego trap"); Brad M. Barber & Terrance Odean, *Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors*, 54 J. FIN. 773, 785–88 (2000); Don A. Moore & Terri R. Kurtzberg, *Positive Illusions and Forecasting Errors in Mutual Fund Investment Decisions*, 79

Such overconfidence may explain the high percentage of sophisticated investors in the study (49%). Another explanation for the high percentage of sophisticated investors may be the double screening that was conducted to target investors—an initial screening by Qualtrics and a second screening in the survey itself, which allowed only those who invest in stocks or bond outside their 401(k) to participate.[171]

Perhaps the most surprising results pertain to the difference between sexes. In the case of Techo, Inc., women behaved like sophisticated investors and disregarded puffery statements, while men behaved like unsophisticated investors and were affected by the puffery statements in the company's disclosure.[172] One potential explanation for the difference between women and men relates to the type of puffery statements in the case of Techo, Inc. Those statements mention only male figures (*e.g.*, Warren Buffet, Bill Gates, and Bill Clinton), and perhaps for this reason influenced women less. Studies in marketing, however, suggest that the sex of a celebrity figure is not an important factor for persuasiveness. Other factors, such as the celebrity's match with the product, the overall image of the celebrity and trustworthiness, are more important.[173]

The results of my experiment lead to two conclusions. The first conclusion is that, contrary to legal scholars' criticism, the courts' assumption that puffery statements do not affect investment decisions is correct in most instances. As the experiment shows, up to a certain degree, investors ignore puffery statements. However, when a puffery statement is strong, like in the case of Techo, Inc., it may affect an investor's decision-making.

The second conclusion is that the literature in behavioral economics on the power of words and subtle changes in presentations should be read and implemented on specific areas very carefully. For instance, as the experiment shows, findings with respect to the effect of puffery statements on

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ORG. BEHAV. & HUM. DECISION PROCESSES 95 (1999); John R. Nofsinger, *Do Optimists Make the Best Investors?*, 64 CORP. FIN. REV. 11 (2002).

[171] 8,352 respondents clicked on the option to take the survey; 5,518 respondents (66%) were screened by Qualtrics prior to entering my survey; of the 2,835 respondents who entered to my survey, 917 respondents (32%) were screened since they were not investors according to the survey's definition.

[172] There was no correlation between gender and sophistication. Approximately 60% of the overall male respondents were sophisticated and approximately 40% of the female respondents were sophisticated.

[173] *See* Belch & Belch, *supra* note 168 at 177 ("Among the most important factors are the celebrity's match with the target audience and the product/service or brand, the overall image of the celebrity, the cost of acquiring the celebrity, trustworthiness, the risk of controversy, and the celebrity's familiarity and likability among the target audience."); *see also* Rabindra N. Kanungo & Sam Pang, *Effects of Human Models on Perceived Product Quality*, 57 J. APP. PSYCHOL. 172 (1973) (finding that "the 'fittingness' of the models for the product is an important variable in product advertisements."); Yuko Sawatari, The Impact of the Gender of Celebrity Athlete Endorser on Consumers of Athletic Shoes (Oct. 25, 2006), (published Masters of Sci. thesis, The Florida State University, College of Education, Department of Sport Management, Recreation Management, and Physical Education) (on file with Florida State University) http://purl.flvc.org/fsu/fd/FSU_migr_etd-2067 (2006) (finding that opposite sex endorsement had a greater effect on women than same sex endorsement with respect to tennis shoes).

consumers cannot be assumed to be similar to the effect of puffery statements on investors.

Like every experiment, this experiment is not shielded from criticism. First, as in any other survey, my sample was not truly random since it excluded people who refuse to take surveys. In addition, as in most web surveys, those who do not have access to Internet are underrepresented.[174] Nevertheless, given the prevalence of Internet use,[175] such a selection bias should not significantly change the results.

Another concern is that the respondents supplied by Qualtrics' panel partners do not represent the investors' population. Cross-study comparisons of investors' demographics are problematic since prior surveys applied multiple definitions of an investor.[176] The most helpful comparison would be to a survey conducted by Abt SRBI with respect to a national sample of 1,000 "adults who invest in stocks, bonds and/or mutual funds, outside of an employer-sponsored retirement plan."[177] The distribution of the respondents' age, education, gender and income in both surveys is very similar, which mitigates the above-mentioned concern.

In addition, there can be no certainty that people actually read and paid attention to the survey. Qualtrics compensated each respondent who completed the survey, which could have incentivized respondents to rush through the survey and collect their compensation. Several safeguards were implemented in order to address this potential problem: 1) Setting minimum time that must be spent in certain blocks. These time thresholds were based on reading speed and the assumption was that the relevant block cannot be read and properly understood in a time below that threshold; 2) Adding an attention check question (a "dummy" question) to disqualify those who do not read the survey; 3) I also disqualified those who initially allocated the investment sum not in accordance with the instructions (*e.g.*, those who allocated a total sum that was substantially different than $10,000). All of these attention filters were used to judge the validity of qualifying completes.

Lastly, there is no certainty that the results reflect actual investor behavior in real financial markets. The experiment puts respondents in an artificial situation, and so their choices may not necessarily correspond to investors' behavior in the real world.[178] I believe, however, that at least the

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[174] *See* Jeckle Bethlehem, *Selection Bias in Web Surveys*, 78 International Statistical Rev. 161 (2010).

[175] *See* Kathryn Zickurr, Who's Not Online and Why, Pew Research Center (Sept. 25, 2013), http://www.pewinternet.org/2013/09/25/whos-not-online-and-why/ ("[a]s of May 2013, 15% of American adults ages 18 and older do not use the internet or email.").

[176] *See* Susan D. Krische, Who is the Average Individual Investor? Numerical Skills and Implications for Accounting Research (2014), https://cepd.okstate.edu/files/Average-Investor-Krische-2014-03-22.pdf.

[177] Abt SRBI, Mandatory Disclosure Documents Telephone Survey (2008), http://www.sec.gov/pdf/disclosuredocs.pdf.

[178] *See* Experimental Foundations of Political Science, Michigan Studies in Political Analysis 27 (Donald R. Kinder & Thomas R. Palfrey, eds., 1993) (worrying that the findings of a study may "be the product of an unrealistically powerful manipulation, one that

results of the experiment regarding Companies A, C, and D, where no effect of puffery statements was found, should be similar to a real world situation where investors make investment decisions based on corporate disclosure. If puffery statements had no effect when given only a few investment options and short disclosures, they most probably do not influence investors' decisions in the real world, where there are many more investment options and extremely lengthy disclosures.[179] However, the involvement of broker-dealers in the investment process may change the results of this experiment, since broker-dealers often know their clients and may customize the information they provide based on each client's specific interests and characteristics. Customized puffery statements may have a larger effect on investors' decision-making, and this experiment did not cover this investment process.

IV. Analysis and Suggestions for Further Research

My recent analysis shows that federal courts widely accept the puffery defense. The analysis also finds that, as in the past, cases still lack reasoned analysis with respect to puffery statements. As discussed above, courts' main justification for the puffery defense is that reasonable investors do not rely on puffery statements.

Scholars have been skeptical about the courts' assumption that puffery statements do not affect investors' investment decisions, and a rich literature in behavioral economics has only exacerbated their concern that the courts are wrong. My experiment finds, however, that the concern is not warranted. In fact, in most cases, investors do not rely on puffery statements. Only in one case, in which the puffery statement was very strong, did it affect investors' decision-making.

Based on my experiment, there is no fundamental problem with a court's dismissal of a claim if the puffed word or statement is a vague or rosy adjective, belief or opinion. A problem arises, however, when the puffed statement is strong. For example, a statement of fact, like in the case of Techo, Inc., is a problematically strong puffed statement. In most of the

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rarely occurs in natural settings."); Brian J. Gaines, James H. Kuklinski & Paul J. Quirk, *The Logic of the Survey Experiment Reexamined*, 15 Pol. Analysis 1 (2007) (acknowledging that survey experiments have major advantages, but identifying problems and difficulties in these experiments, and suggesting ways to mitigate these problems). *But see* Howard Lavine, *On-Line vs. Memory-Based Process Models of Political Evaluation, in* Political Psychology 225, 242 (Kristen R. Monroe ed., 2002) (proclaiming that "survey experiments that integrate representative samples with the experimental control of questions represent the most valuable tool for gaining access to the processes that underlie opinion formation."); Daniel J. Hopkins, *The Priming Power of Spanish: Testing the External Validity of a Survey Experiment* 17 (2011), http://cess.nyu.edu/policon2012/wp-content/uploads/2012/02/Dan-Hopkins.pdf (presenting a survey experiment with results that parallel those observed in a similar natural experiment).

[179] *See* Jason Barabas & Jennifer Jerit, *Are Survey Experiments Externally Valid?* 104 Am. Pol. Sci. Rev. 226, 238 (2010) (expecting "the level of exposure in a survey experiment to exceed that found in the real world.").

court cases that I surveyed, the distinction between the strong and the weak puffery statements was quite clear. However, it is not always easy to determine the degree of a puffery statement. My suggestion would be that when there is doubt, the court should conduct a full materiality analysis.

I believe that this approach—conducting a full materiality analysis only in the few cases where the puffery statements are strong—balances well the policy objectives with respect to the puffery defense. On the one hand, dismissing statements that are too vague and rosy makes the judicial process more efficient, and respects companies' right to be optimistic. On the other hand, conducting a full materiality analysis with respect to strong puffery statements is a crucial safeguard against the potential of such statements to affect investors' decisions.

I distinguish between strong and weak puffery statements, and not between statements of opinion and statements of fact, for two main reasons. First, the latter may be more difficult to distinguish since opinion statements often imply facts[180] or contain embedded factual assertions.[181] Second, statements of opinion can be strong and misleading, especially when stated by a company's officers or directors, who "usually have knowledge and expertness far exceeding the normal investor's resources"[182] and who have the obligation to act in the shareholders' interest and present accurate information.[183] In addition, by distinguishing between statements of fact and statements of opinion, issuers would be able to simply frame their puffery statements as statements of opinion. For example, instead of stating that they had a solid year they would state that they *believe* that they had a solid year. This result is clearly unfair and artificial.

As mentioned above, the experiment has limitations, and different expansions of the experiment may address some of these limitations. For example, my experiment tested only two mixes of puffery and non-puffery statements, A+, B+, C-, D- and A-, B-, C+, D+, out of many possible combinations. It is possible that a different mix would have yielded different results. In addition, a similar experiment with additional cases may need to be conducted in order to fully represent the data set of federal courts' decisions.

Unfortunately, I was not able to analyze the effect of puffery statements on accredited investors since the number of participants who were accredited investors was too small to conduct statistical analysis. It would be interesting

[180] *See* Preston, *supra* note 12 at 69; Omnicare, Inc. v. Laborers Dist. Council Constr. Indus. Pension Fund, 135 S. Ct. 1318, 1326 (2015) ("every [statement of opinion] explicitly affirms one fact: that the speaker actually holds the stated belief.").

[181] *Omnicare*, 135 S. Ct. at 1327 ("Suppose the CEO in our running hypothetical said: '"I believe our TVs have the highest resolution available because we use a patented technology to which our competitors do not have access.'." That statement may be read to affirm not only the speaker's state of mind, as described above, but also an underlying fact: that the company uses a patented technology.").

[182] Virginia, Bankshares, Inc. v. Sandberg, 501 U.S. 1083, 1091 (1991).

[183] *See id.*

to test whether accredited investors, who are presumably sophisticated investors, indeed behave similarly to sophisticated investors in their investment decisions. A similar data set with a larger number of accredited investors would enable the testing of the correlation between sophisticated investors and accredited investors. The results of this test could help the SEC adjust the definition of an accredited investor.[184]

Furthermore, this experiment focused on cases in which the court *accepted* the puffery defense. Another experiment could be designed with respect to cases in which the court *rejected* the puffery defense to test whether the courts' decisions reflect investors' behavior.

Lastly, to correspond more accurately to the real world, one could try to design a field experiment with real stakes.

Conclusion

Law professor Donald Langevoort asked the descriptive question: "Is it clear that typical investors do not rely on puffery?"[185] His answer was: "There is little research that studies this specifically, and so many judges are guessing."[186] The goal of this paper is to shed some light on how federal courts in recent years have decided on the issue of puffery defense, and specifically address the question of whether investors rely on puffery statements.

The results of my experiment should soften the criticism that scholars have raised with respect to the courts' assumption that investors do not rely on puffery statements. At the same time, these results call for a cautious analysis of strong puffery statements, such as factual statements, as well as cautious implementation of policy based on behavioral economics.

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[184] The SEC's Investor Advisory Committee recommended on October 9, 2014 that the definition of an "accredited investor" be radically redefined since this definition seems to be both over and under inclusive. *See* SEC, Recommendation of the Investor as Purchaser Subcommittee and the Investor Education Subcommittee: Accredited Investor Definition (Oct. 9, 2014), https://www.sec.gov/spotlight/investor-advisory-committee-2012/accredited-investor-definition-recommendation.pdf.

[185] Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 Nw. U. L. Rev. 135, 184 (2002).

[186] *Id.* (footnote omitted)

Appendix A: Corporate Disclosure

With Puffery Statements (highlighted in bold)	Without Puffery Statements
Vidi Games Inc. Press Release Vidi Games Inc. ("Vidi"), a leading developer and publisher of interactive entertainment software for major video game systems, announced today that it has acquired InterGame Holdings Ltd. ("InterGame"), a game development studio based in the United Kingdom. Based in London, United Kingdom, Intergame is an innovative developer of high-quality interactive entertainment products. Established in 1990, InterGame's first title, Slider, was released in 1993 to critical and commercial success. The studio has grown into one of the world's premier racing game developers. Vidi acquired the privately-held developer in a primarily stock transaction for 219,450 Vidi shares. The studio is currently working on several unannounced Vidi products for both current- and next-generation systems. In addition to shares issued as consideration for the acquisition of InterGame, rights to acquire a total of 25,000 shares of Vidi common stock were issued to key InterGame employees as retention incentives. The rights to acquire the stock will vest in stages over a period of three years, provided the employee remains at Vidi. Vidi's President and Chief Executive Officer, John A. Taylor, commented, "**This transaction is con-**	**Vidi Games Inc.** Press Release Vidi Games Inc. ("Vidi"), a leading developer and publisher of interactive entertainment software for major video game systems, announced today that it has acquired InterGame Holdings Ltd. ("InterGame"), a game development studio based in the United Kingdom. Based in London, United Kingdom, Intergame is an innovative developer of high-quality interactive entertainment products. Established in 1990, InterGame's first title, Slider, was released in 1993 to critical and commercial success. The studio has grown into one of the world's premier racing game developers. Vidi acquired the privately-held developer in a primarily stock transaction for 219,450 Vidi shares. The studio is currently working on several unannounced Vidi products for both current- and next-generation systems. In addition to shares issued as consideration for the acquisition of InterGame, rights to acquire a total of 25,000 shares of Vidi common stock were issued to key InterGame employees as retention incentives. The rights to acquire the stock will vest in stages over a period of three years, provided the employee remains at Vidi. Vidi is a Delaware corporation formed in July 1990. Our principal executive office is located at 2666

sistent with our strategy of adding depth to our internal product development organization and strengthening our ability to deliver high-quality, compelling and commercially successful content for current and future systems. InterGame brings to Vidi a rare combination of development expertise in driving and on-foot combat that they are incorporating into our games now in development.” Vidi’s Senior Vice President of Worldwide Studios, Sam Smith, said, “**We are working closely with InterGame in one of our key titles for next year. We believe this is an opportunity to establish our development presence in the midst of the great pool of talent in Australia, and bring to Vidi technical expertise and experience that will specifically help facilitate our development of multi-genre action games. We look forward to announcing the projects that our new Vidi Studios Australia is developing.**	Esat Roscoe Street, Chicago, Illinois 60618, and our telephone number at that location is (773) 944-4444. We maintain an Internet website featuring our products and upcoming product releases, located at www.vidi.com. The content of our website is not incorporated by reference in this press release, and you should not consider it to be part of this press release. We file periodic reports, proxy statements and other information with the Commission in accordance with the requirements of the Exchange Act. We make our Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q and any amendments to such reports available free of charge through our corporate website at www.midway.com as soon as reasonably practicable after we file any such report with the Commission. Our filings with the Commission also are available to the public over the Internet at the Commission’s website at http://www.sec.gov.
<u>Techo Inc.</u> Techo Inc. is technology company that plans to bring new technology developed in Japan to the United States. This technology is based on a patented process involving the conversion of plastic waste into oil. You are meeting with the Chief Executive Officer (CEO) of Techo, who describes the company to you. The information he provides to you include the following statements: • We collect mainly mixed plastics from commercial and industrial enterprises that generate large amounts of waste plastic for use	**<u>Techo, Inc.</u>** Techo, Inc. (“Techo”) is technology company that plans to bring new technology developed in Japan to the United States. This technology is based on a patented process involving the conversion of plastic waste into oil. You are meeting with the Chief Executive Officer (CEO) of Techo, who describes the company to you. The information he provides to you include the following statements: • We collect mainly mixed plastics from commercial and industrial enterprises that generate large

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in our process;

We own and operate our processor and have the capability to produce and store the oils at, and ship from, our facilities in Japan;
To ensure the protection of our proprietary technology, we have applied for patent protection for both our process and the processor;
We employ 10 persons on a full-time basis, of which 2 are executive management, 2 are in finance and administration, 1 is in procurement, sales and marketing, 4 are in operations and 1 is in technology/ research and development;
We had communicated with numerous other investors who were interested in investing in Techo, including Warren Buffet, Bill Gates, Dow Chemical, Morgan Stanley, and Goldman Sachs. Former President Bill Clinton agreed to become affiliated with Techo, possibly as a member of its board of directors.

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amounts of waste plastic for use in our process;

We own and operate our processor and have the capability to produce and store the oils at, and ship from, our facilities in Japan;
To ensure the protection of our proprietary technology, we have applied for patent protection for both our process and the processor;
We employ 10 persons on a full-time basis, of which 2 are executive management, 2 are in finance and administration, 1 is in procurement, sales and marketing, 4 are in operations and 1 is in technology/ research and development;
You can find more information about our company, its management and facilities on our website at <u>www.techo.com.</u> We will be happy to set a telephone conversation or additional meetings if you need more information. Please let us know if you have any questions.

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<u>National Home Loans, Inc.</u>
You are attending an Investor Forum hosted by National Home Loans, Inc. (“National”) and listening to a speech given by National’s Chief Executive Officer, which includes the following information about National:

We are engaged primarily in the mortgage banking business and as such originate, purchase, sell, and service mortgage loans.
Our principal sources of revenue are: (i) loan origination fees; (ii) gains from the sale of loans, if

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<td>
<u>National Home Loans, Inc.</u>
You are attending an Investor Forum hosted by National Home Loans, Inc. (“National”) and listening to a speech given by National’s Chief Executive Officer, which includes the following information about National:

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<table>
<tr><td>thing that we do.</td><td></td></tr>
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Press Release
Mednic, Inc. (“Mednic”) is the world’s leading medical technology company, alleviating pain, restoring health and extending life for people with chronic disease.
Mednic today announced financial results for its first quarter of fiscal year 2014, which ended July 30, 2013.
Mednic recorded first quarter revenue of $3.127 billion, an 8 percent increase over the $2.897 billion reported in the first quarter of fiscal year 2013. As reported, net earnings for the first quarter of fiscal year 2014 were $675 million, or $0.59 per diluted share, an increase of 13 percent and 16 percent, respectively, over the same period in the prior year.
Diabetes revenue of $60 million was down 41 percent, due to the January 2013 voluntary suspension of U.S. product shipments to address quality system issues.
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Diabetes revenue of $60 million was down 41 percent, due to the January 2013 voluntary suspension of U.S. product shipments to address quality system issues.
Pursuant to the requirements of the Securities Exchange Act of 1934, Mednic has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.
MEDNIC, INC.
By /s/ John E. Cod
Date: August 21, 2014
Senior VP and Chief
Financial Officer
</td></tr>
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Appendix B: Survey (Version 1—Positive Control)

Consent Informed Consent Form

Introduction

You are being asked to participate in a research study by Adi Osovsky at Harvard University. This research study is being conducted to evaluate why individuals prefer one investment option to another.

Procedures

If you agree to participate, you will complete a survey in which you will be shown certain information about four different companies. You will also be given a hypothetical total sum of $10,000 to be invested among these four companies. There are also a few demographic questions. The survey is expected to take approximately 15 minutes.

Risks/Discomforts

The risks of participating in this study are expected to be no more than minimal and any discomfort is expected to be similar to what one would have from working on a computer for 15 minutes.

Benefits

There are expected to be no direct benefits for participants. However, it is hoped that through your participation, researchers will learn more about investors' behavior.

Confidentiality

There will be no identifying information collected, so your identity will not be linked with your study responses. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until it has been deleted by the primary investigator.

Compensation

You will receive compensation in the form of points, which you will receive after you complete the survey. You will be able to use the points in return for cash and/or raffles. These points will be distributed approximately two weeks after you complete your survey.

Participation

Participation in this research study is completely voluntary. You have the right to withdraw at any time or refuse to participate entirely. If you desire to withdraw, please close your internet browser.

Questions about the Research

If you have questions regarding this study, you may contact Adi Osovsky: aosovsky@sjd.law.harvard.edu or Howell E. Jackson: hjackson@law.harvard.edu.

You may print or save a copy of this document for your records.

I have read and understood the above consent form and desire of my own free will to participate in this study.

○ Yes (1)
○ No (2)

If No Is Selected, Then Skip To End of Block

Have you ever invested in securities such as stocks and bonds outside your 401(k)?

○ Yes, with the assistance of an investment advisor (1)
○ Yes, without the assistance of an investment advisor (2)
○ Yes, both with and without the assistance of an investment advisor (3)
○ No (4)

If No Is Selected, Then Skip To End of Block

On a scale of 0-10, how involved are you in your investment choices (0 means that you do whatever your investment advisor tells you and you don't even know how your portfolio looks like and 10 means that you know in which companies you invest, you read those companies reports etc.)

○ 0 (0)
○ 1 (1)
○ 2 (2)
○ 3 (3)
○ 4 (4)
○ 5 (5)
○ 6 (6)
○ 7 (7)
○ 8 (8)
○ 9 (9)
○ 10 (10)

Read Do you read financial news, companies' reports (such as annual reports, letters to shareholders etc.), or analysts' reports?

○ Yes (1)
○ No (2)

How would you rate your knowledge and experience in financial and business matters? (zero means you have no capability of evaluating the merits and risks of a prospective investment and ten means that you are fully capable of evaluating the merits and risks of a prospective investment)

○ 0
○ 1
○ 2

○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10

What is your individual net worth, or joint net worth with your spouse? (excluding the value of your primary residence)

○ Less than $200,000
○ Between $200,001 and $500,000
○ Between $500,001 and $999,999
○ More than $1 million

What was your personal income in each of the two most recent years?

○ Less than $25,000 in each year
○ Between $25,001 and $50,000 in each year
○ Between $50,001 and $100,000 in each year
○ Between $100,001 and $150,000 in each year
○ Between $150,001 and $199,999 in each year
○ More than $200,000 in each year

What was your joint income with your spouse in each of the two most recent years?

○ I do not have a spouse
○ Less than $50,000 in each year
○ Between $50,001 and $100,000 in each year
○ Between $100,001 and $150,000 in each year
○ Between $150,001 and $200,000 in each year
○ Between $200,001 and $250,000 in each year
○ Between $250,001 and $299,999 in each year
○ More than $300,000 in each year

How often would you say that February 20th occurs?

○ Daily (1)
○ Weekly (2)
○ Monthly (3)
○ Yearly (8)

You will be shown certain information about four different companies.

You have a hypothetical total sum of $10,000 to be invested among these four companies.

Please read carefully about each company and then allocate $10,000 among the four companies. You may choose to allocate all $10,000 to one company or allocate your investment evenly or unevenly across the four companies.

Please do not use any comma, type digits only.

I recommend that you first read the four descriptions and then make your decision. Please note that your total investment in the four companies must sum to $10,000.

Press Release

Vidi Games Inc. ("Vidi"), a leading developer and publisher of interactive entertainment software for major video game systems, announced today that it has acquired InterGame Holdings Ltd. ("InterGame"), a game development studio based in the United Kingdom.

Based in London, United Kingdom, Intergame is an innovative developer of high-quality interactive entertainment products. Established in 1990, InterGame's first title, Slider, was released in 1993 to critical and commercial success. The studio has grown into one of the world's premier racing game developers. Vidi acquired the privately-held developer in a primarily stock transaction for 219,450 Vidi shares. The studio is currently working on several unannounced Vidi products for both current- and next-generation systems. In addition to shares issued as consideration for the acquisition of InterGame, rights to acquire a total of 25,000 shares of Vidi common stock were issued to key InterGame employees as retention incentives. The rights to acquire the stock will vest in stages over a period of three years, provided the employee remains at Vidi.

Vidi's President and Chief Executive Officer, John A. Taylor, commented, "This transaction is consistent with our strategy of adding depth to our internal product development organization and strengthening our ability to deliver high-quality, compelling and commercially successful content for current and future systems. InterGame brings to Vidi a rare combination of development expertise in driving and on-foot combat that they are incorporating into our games now in development."

Vidi's Senior Vice President of Worldwide Studios, Sam Smith, said, "We are working closely with InterGame in one of our key titles for next year. We believe this is an opportunity to establish our development presence in the midst of the great pool of talent in Australia, and bring to Vidi technical expertise and experience that will specifically help facilitate our development of multi-genre action games. We look forward to announcing the projects that our new Vidi Studios Australia is developing."

Based on this press release, and of a total investment sum of $10,000, how much money would you invest in Vidi? (please enter a numeric value)

Techo, Inc.

Techo Inc. is a technology company that plans to bring new technology developed in Japan to the United States. This technology is based on a patented process involving the conversion of plastic waste into oil. You are meeting with the Chief Executive Officer (CEO) of Techo, who describes the company to you. The information he provides to you include the following statements:

We collect mainly mixed plastics from commercial and industrial enterprises that generate large amounts of waste plastic for use in our process;

We own and operate our processor and have the capability to produce and store the oils at, and ship from, our facilities in Japan;

To ensure the protection of our proprietary technology, we have applied for patent protection for both our process and the processor;

We employ 10 persons on a full-time basis, of which 2 are executive management, 2 are in finance and administration, 1 is in procurement, sales and marketing, 4 are in operations and 1 is in technology/ research and development;

We had communicated with numerous other investors who were interested in investing in Techo, including Warren Buffet, Bill Gates, Dow Chemical, Morgan Stanley, and Goldman Sachs. Former President Bill Clinton agreed to affiliate himself with Techo, possibly as a member of its board of directors.

Based on this information, and of a total investment sum of $10,000, how much money would you invest in Techo, Inc.? (please enter a numeric value)

National Home Loans, Inc.

You are attending an Investor Forum hosted by National Home Loans, Inc. ("National") and listening to a speech given by National's Chief Executive Officer, which includes the following information about National:

We are engaged primarily in the mortgage banking business and as such originate, purchase, sell, and service mortgage loans.? Our principal sources of revenue are: (i) loan origination fees; (ii) gains from the sale of loans, if any; (iii) interest earned on mortgage loans during the period that they are held by our pending sale, net of interest paid on funds borrowed to finance such mortgage loans; (iv) loan servicing fees; and (v) interest benefit derived from the custodial balances associated with our servicing portfolio.

We produce mortgage loans through three separate divisions. The Consumer Markets Division originates Prime mortgages, home equity loans and Sub-prime loans. The Wholesale Division produces Prime mortgages, home equity loans and Sub-prime loans. Through the Correspondent Division, National purchases loans from other mortgage bankers, commercial banks, savings and loan associations, credit unions and other financial intermediaries.

We receive a fee for servicing mortgage loans ranging generally from 1/4% to 1/2% per annum on the declining principal balances of the loans. We have sold, and may sell in the future, a portion of our portfolio of loan servicing rights to other mortgage servicers.

We have an intense and ongoing focus on share growth while at the same time maintaining a very strong internal control environment and what we believe is best-of-class governance.

Our culture is also characterized by a very high degree of ethics and integrity in everything that we do. ?

Based on this information, and of a total investment sum of $10,000, how much money would you invest in National Home Loans, Inc.? (please enter a numeric value)

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Collin Smith, Mednic chairman and chief executive officer, said, "We are well positioned in some of the most attractive worldwide markets, and we have a top flight leadership team that will help take Mednic to the next level as the world's leading medical technology company."

Based on this press release, and of a total investment sum of $10,000, how much money would you invest in Mednic, Inc.? (please enter a numeric value)

Please verify your choices or make any desired changes (note that your total investment in the four companies must sum to $10,000):

______ Vidi Games, Inc.
______ Techo, Inc.
______ National Home Loans, Inc.
______ Mednic, Inc.

What is your gender?

○ Male
○ Female

What is your age?

○ 18 - 25
○ 26 - 39
○ 40 - 59
○ 60 years and over

What is the highest level of education that you completed?

○ Some high school
○ High school graduate
○ Some college
○ College graduate
○ Some postgraduate work
○ Post graduate degree