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Investor Reactions To Complex Financial Accounting Disclosures: Experimental Evidence From The Tax Disclosure Of Permanently Reinvested Earnings

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INVESTOR REACTIONS TO COMPLEX FINANCIAL ACCOUNTING DISCLOSURES: EXPERIMENTAL EVIDENCE FROM THE TAX DISCLOSURE OF PERMANENTLY REINVESTED EARNINGS

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DEDICATION

I dedicate this work to my family. To my Mom and Dad, Lisa and Craig Shuneson: if not for your love and care I would never have had the opportunity to pursue my educational goals and developed the persistence needed to complete a doctoral program. The life lessons you taught me were far more valuable than anything I have ever learned in a classroom.

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ABSTRACT

This paper investigates how increasing the transparency of complex financial accounting disclosures affects investor judgments. The income tax disclosure of permanently reinvested earnings is the context of this investigation as the Financial Accounting Standards Board (FASB) is currently evaluating income tax disclosures and has specifically identified the disclosure of permanently reinvested earnings as an area to be reevaluated. Current standards allow corporations flexibility in their disclosures that can lead investors to be surprised by changes in a corporation's assertions regarding the reinvestment of foreign earnings. My study suggests that increasing the transparency of complex disclosures through the explicit reporting of an economic value does not affect investor judgments. However, a change in the management assertion related to the realization of that value has a significant effect on investors' judgments. My results demonstrate that standard setters should be mindful that management assertions may shape investors' reactions to an equal or greater extent than the numerical disclosures in complex financial accounting matters.

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LIST OF ABBREVIATIONS

AMT .... Amazon Mechanical Turk

APB .... Accounting Principles Board

ASC .... Accounting Standards Codification

ASU .... Accounting Standards Update

FASB .... Financial Accounting Standards Board

OECD .... Organisation for Economic Co-operation and Development

PIR .... Post-Implementation Review

PRE .... Permanently Reinvested Earnings

SEC .... Securities and Exchange Commission

CHAPTER 1

INTRODUCTION

This study investigates how nonprofessional investors react to increasing the transparency of complex financial accounting disclosures.[1] As of 2013, 49 percent of all families held stock and by 2016, the equity securities held by households amounted to 40.7 percent of the market (SIFMA 2017). In addition, the Financial Accounting Standards Board (FASB) specifically mentions individual (i.e., nonprofessional) investors in its Investor Advisory Committee charter as a group whose viewpoints they value (FASB 2016b). Specifically, it is important to understand the judgments of such a large, amateur financial statement user group related to complex financial information presented in the financial statements. While comment letters to FASB indicate that investors value increased transparency, nonprofessional investors may not have the skills and experience to make correct conclusions about the more transparent information provided. However, without increased transparency, investors may feel misled by the financial information they receive. Though this study examines the transparency tradeoff in regards to tax disclosures of permanently reinvested earnings, this same tradeoff could apply to many complex accounting areas, such as contingent liabilities, and fair value calculations.

[1] Transparency is a broad term which can be operationalized in many different ways. When I use the phrase "increased transparency" in this paper, I am referring to the addition of an explicit disclosure of an economic value to a complex accounting disclosure.

Over the last few years, accounting standard setters and the news media have shown an interest in the reporting of permanently reinvested earnings (e.g., Gelles and de la Merced 2015, FASB 2016a). Permanently reinvested earnings (PRE) are earnings from a foreign subsidiary that a corporation plans to reinvest indefinitely in a foreign jurisdiction. These earnings are also referred to interchangeably as "untaxed foreign earnings," "indefinitely reinvested earnings," or "undistributed earnings." The recent attention to PRE stems from the income tax consequences of these earnings. For foreign earnings that are temporarily reinvested, income taxes are accrued for financial accounting purposes in the period earned, although the taxes are not paid until the earnings are repatriated. However, for foreign earnings that are deemed permanently reinvested, no accrual for income taxes is necessary.[2] Instead, ASC 740-30-50-2 requires corporations to disclose, but not record, the potential future tax liability unless management deems the tax liability impracticable to estimate, in which case no dollar value is disclosed.[3]

The impact of PRE on investors can be significant. Investors have seen considerable PRE growth in large U.S. corporations over the last several years. For Fortune 500 companies, PRE have more than doubled in the last six years. In 2009, $1.125 trillion of PRE were held offshore, compared with $2.4 trillion at the end of 2015

[2]In this paper, I will use the term permanently reinvested earnings (PRE) to refer to these earnings. In general, foreign earnings can be classified in three possible ways: as permanently reinvested, as temporarily reinvested, or as not reinvested (i.e., immediately repatriated to the U.S.).

[3] With the passage of the 2017 Tax Cut and Jobs Act, the taxation of permanently reinvested foreign earnings (and foreign earnings in general) has undergone significant changes. However, the implications of this study to complex accounting disclosures overall are still relevant. This paper ignores these changes as very little guidance has been issued on the implementation and interaction of these new rules. Both the IRS and the FASB have plans to issue guidance related to the tax changes in the near future. Additionally, though the tax law has changed, it has not completely eliminated all tax deferrals or the method of disclosure for asserting permanent reinvestment (PwC 2018).

(CTJ 2012, CTJ 2016). Under current accounting standards wide variation exists among companies in the reporting of PRE. In the majority of situations, this results in significant information asymmetry between corporations and investors about the potential income tax expense related to PRE. This is evidenced by the fact that while over 60 percent of Fortune 500 companies had PRE offshore at the end of 2015, only 27 (less than 10 percent) of these companies disclose (in the income tax footnote) the amount of U.S. tax they would pay if they repatriated the earnings (CTJ 2016). This is problematic because when corporations deem the potential deferred tax liability estimate to be impracticable (and do not disclose any amount as a future potential tax liability), and later change their assumptions about permanent reinvestment, a previously off-balance sheet (and undisclosed) liability must be currently recognized. Making this previously unknown liability a reality could result in significant income tax expense consequences that are difficult for nonprofessional investors to anticipate.

To investigate the effect of disclosure transparency on nonprofessional investors' judgments, I conduct a 3x3 between-participants experiment. In period one of the experiment, participants receive one of three possible disclosures related to PRE and its tax implications. One disclosure includes an amount for PRE with no related potential tax liability (the disclosure that has been predominately used), another disclosure includes an amount for PRE with an additional disclosure about foreign cash and cash equivalents (the current FASB proposed disclosure), and the final disclosure includes an amount for PRE and a related potential tax liability range (an alternative disclosure that has been considered by FASB). After receiving the disclosure, participants make attractiveness assessments and future tax liability likelihood assessments.

In period two of the experiment, participants see one of three possible year two scenarios. In one scenario, management assertions regarding permanent reinvestment of foreign earnings do not change and repatriation does not occur. In a second scenario, management assertions regarding permanent reinvestment of foreign earnings change as a result of an unanticipated cash need and repatriation occurs with a resulting tax liability. In a third scenario, management assertions regarding permanent reinvestment of foreign earnings change as a result of a predictable cash need and repatriation occurs with a resulting tax liability. Participants again make investment attractiveness assessments and also indicate whether or not they feel misled by the period one disclosure they received.

I predict that nonprofessional investors will fixate on the disclosure of a potential liability and infer that a liability exists, even though as long as the foreign income is permanently reinvested no future tax liability exists. Consequently, there will be a difference in tax liability likelihood assessments and level of investment attractiveness assessments, with those who receive a disclosure containing a dollar amount indicating higher tax liability likelihood assessments and lower investment attractiveness assessments. My predictions are based on theory that suggests since individuals are biased in favor of that to which they are exposed (e.g., Brenner et al. 1996, Slovic 1972), participants who receive a less transparent disclosure may not recognize the importance or magnitude of the information of which they are unaware and may infer that no future potential liability exists. On the other hand, given that nonprofessional investors often struggle with financial analysis (e.g., Maines and McDaniel 2000, Hodge et al. 2004), the increased transparency that an explicit disclosure of a potential liability contains may serve as an anchor that is not adjusted properly based on other relevant information (e.g., that the income is PRE and thus no U.S. tax will be owed *unless* this designation is changed) in the estimation of the potential tax liability (Slovic 1972).

However, the results of my study show that participants are not affected differentially by the tax footnote disclosures. Regardless of the type of disclosure participants receive, less than 5 percent believe that U.S. tax will ever be paid on foreign earnings that management asserts are permanently reinvested. Even when there is a disclosure indicating the dollar amount of a potential tax liability, participants appear to heavily rely on management's assertion that the earnings will be permanently reinvested. Though it makes sense that people would not assume a liability will be due soon, companies can and do change their assertions, so it is very surprising that less than 5 percent believe that repatriation will ever happen.

I also predict that when an unexpected tax liability occurs, investors will react more strongly when they receive a disclosure that does *not* contain an estimated tax amount along with PRE compared to when they receive a disclosure that includes a specific potential tax liability. Prospect theory suggests that investors who experience a loss because they have not anticipated a future tax liability, will react more strongly to the occurrence of a tax liability (Kahneman and Tversky 1979).

Further, if the resulting tax liability is a result of an event within management's control, this negative reaction will be even more pronounced than when the tax liability is a result of something management could not reasonably anticipate. Though attribution theory indicates that individuals are held responsible for negative outcomes (e.g., Shaw and Sulzer 1964), when an individual provides an external justification for an action that damages an observer, observers are less frustrated by the action than if no external justification is given (Kelley and Michela 1980).

My results are mixed in that when an unanticipated tax liability arises, the transparency of the footnote disclosure does not affect nonprofessional investors' feelings of being misled. Given my results for the footnote disclosure conditions alone, this result is not surprising. However, participants do feel misled if management repatriates foreign earnings when it asserted that it would not. Additionally, if management should have been able to foresee a need for the repatriation, participants feel even more misled. These feelings lead to decreases in investment attractiveness judgments. Taken as a whole, my results demonstrate the importance of management assertions in financial reporting: investors must be able to appropriately rely on the information provided in disclosures, because without transparent disclosures of management's true intentions investors feel misled.

The results of this study contribute to theory and practice. First, this study extends the stream of financial accounting literature concerned with the effects of accounting disclosure placement on how the disclosure's information is used and interpreted (See Libby et al. 2002 and Libby and Emett 2014 for a discussion of this literature). Prior studies have focused on the weight (Maines and McDaniel 2000), the classification (Hopkins 1996), and the acquisition and integration (Hodge et al. 2004) of disclosed information based on the placement of the information. This study extends that literature by considering the use and interpretation of a disclosure that requires subjective and complex calculations and may or may not be specifically disclosed depending on management's assertions. Leases, fair value, and contingent liability disclosures are just a few examples of complex accounting disclosures to which this study may apply.

Second, this study provides further insight into one of the most complex financial statement disclosures: the tax footnote. Tax disclosures are important to investors since income taxes make up a large portion of the expense a corporation incurs. Additionally, the financial statements are usually the sole source of information investors can access about a corporation's tax situation (Graham et al. 2012), and currently the information needed to estimate the tax ramifications of PRE is often scattered throughout the financial statements. Taxes also likely intimidate nonprofessional investors because these investors often lack specific tax knowledge. Given all of these factors, understanding how tax disclosures affect investors in determining a corporation's financial position is vital.

Finally, this study provides valuable information to regulators who specifically identify nonprofessional investors as an important stakeholder in the financial reporting process. My results indicate that investors rely on the qualitative information provided in footnotes (i.e., management assertions) rather than the quantitative information provided (i.e., explicit economic values). As regulators seek to implement useful guidance, this information could help them design their rules to best meet the needs of the nonprofessional investor stakeholder group.

The paper proceeds as follows: Section II provides background and hypothesis development, Section III describes the experiment, Section IV explains the results, and Section V concludes.

CHAPTER 2

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background about Permanently Reinvested Earnings

Under the rules in effect when this study was conducted, the United States corporate income tax system is a worldwide system, meaning U.S. companies are taxed on worldwide income, without regard to where the income is earned. However, the tax law allows corporations to defer the payment of U.S. income tax on earnings of foreign subsidiaries until those earnings are repatriated (in the form of dividends) to their U.S. parent. Therefore, U.S. corporations avoid current U.S. taxation by reinvesting foreign earnings in foreign jurisdictions. Foreign jurisdictions may subject the income to current taxation, and when foreign taxes are paid on income that is later repatriated, the U.S. allows a tax credit for income taxes already paid on the foreign income. Given that the U.S. had the world's third highest corporate tax rate, and the highest of all Organisation for Economic Co-operation and Development (OECD) countries and major trading partners, foreign taxes were almost always less than U.S. taxes (Pomerleau 2015). Under ASC 740, a deferred tax liability should be recorded in the period foreign income is earned to account for the future income taxes owed on reinvested foreign earnings. However, if foreign earnings are deemed to be permanently reinvested in the foreign jurisdiction, no deferred tax liability must be recorded (ASC 740-30-25-17, previously known as APB 23). An estimate of the unrecognized deferred tax liability is required to be disclosed in the income tax footnote, unless an estimate is “not practicable.” In practice, few companies disclose an estimate of the unrecognized deferred tax liability.

The lack of disclosure is especially problematic because earnings designated as PRE can, and are, easily undesignated as permanently reinvested. For example, Usvyatsky and McKeon (2016) highlight that several large companies reported decreases in PRE from 2014 to 2015.[4] They investigate several of these companies and find no common reason for the decreases. Each company made the change in assertion about permanent reinvestment based on its specific business needs, for example, the desire to buy back stock or pay a dividend.[5] GE Capital made headlines in 2015 for its unexpected change in assertions about permanent reinvestment. When GE Capital was sold, General Electric decided to repatriate the subsidiary’s $36 billion in PRE. This resulted in an unexpected accrual of income tax expense of $3.548 billion (GE 2015, Gelles and de la Mercad 2015). This was a surprise for investors as General Electric’s 2014 annual report did not disclose an amount for any potential unrecognized taxes on PRE (GE 2014).

Regulatory changes could also influence management’s assertions about permanent reinvestment. When the American Jobs Creation Act of 2004 provided for repatriation of foreign earnings at a reduced rate (5.25 percent compared to 35 percent), firms repatriated $299 billion of foreign earnings (not necessarily all PRE) to receive favorable tax treatment (Norris 2009). As Fleischer (2012) notes, many companies are

[4] The five largest companies to have decreases are General Electric Co, Baxter International Inc., Noble Energy Inc., Murphy Oil Corp., and Keysight Technologies, Inc. These companies saw decreases of between 3.1 and 15 billion dollars in PRE over the course of a year.

[5] A change in assertion in this context is a change in management’s claim about the permanent reinvestment of foreign earnings. Some of the other reasons for the change in management’s assertions include: more favorable tax consequences than when the PRE were first designated as PRE due to the foreign currency weakening against the U.S. dollar resulting in a higher foreign tax credit, repayment of a note receivable from a foreign subsidiary, and repatriation due to U.S. cash needs from mergers and acquisitions (Usvyatsky and McKeon 2016).

now keeping cash overseas waiting for another tax holiday, while simultaneously claiming for financial reporting purposes that this cash will be permanently reinvested. He quotes an Ernst and Young adviser as saying "An assertion of indefinite or permanent investment until Congress changes that law allowing cheaper repatriation again doesn't sound permanent" (Fleischer 2012, pg. 3).[6]

The financial reporting of PRE has come under increased scrutiny from accounting standard setters as a result of the surge in its growth. Recent Securities and Exchange Commission (SEC) comment letters have stressed the importance of corporations providing "accurate, transparent, and plain-English disclosures of significant assertions and estimates, including those associated with undistributed foreign earnings" (Abahoonie and Barbut 2012, pg. 2). With increasingly large amounts of income generated overseas, the tax implications of these earnings may materially affect the financial statements, and investor decisions.[7] Additionally, the SEC has noted the 10-K should be consistent in its treatment of PRE. For example, the SEC has criticized the practice of corporations disclosing that no potential tax liability exists because foreign earnings are permanently reinvested, while simultaneously identifying these earnings as available in the U.S. for liquidity and capital resource purposes (Abahoonie and Barbut 2012). See Exhibit A for examples of SEC comment letters about this practice. Current accounting standards do not prevent this inconsistent treatment of PRE. Based, in part, on

[6] With the passage of the 2017 Tax Cuts and Jobs Act, a tax (toll charge) of 15.5% on reinvested earnings in the form of cash and cash equivalents and an 8% tax on the remaining reinvested earnings will be assessed in lieu of the federal income tax that would otherwise be due upon repatriation at the former corporate rate of 35%.

[7] In addition to the disclosure of PRE, some might be concerned about the foregone tax revenue related to these earnings. This is a separate issue and not the focus of the current paper.

SEC comment letters, FASB is addressing PRE in its proposed accounting standards update (ASU) on the disclosure of income taxes (FASB 2016a).

FASB states that its purpose in the overall disclosure framework project is to, "improve the effectiveness of disclosures required by GAAP in the notes to the financial statements by facilitating clear communication of information that is most important to financial statement users" (FASB 2016a, pg. 1). In regards to income taxes specifically, the Post-Implementation Review (PIR) of Statement 109 (now codified as ASC 740) indicates users may not have the detail necessary to determine the tax effects related to earnings that may possibly be repatriated to the U.S. parent company (FASB 2016a).

Users themselves provided feedback to FASB (in the form of comment letters) indicating that removing the practicability exception of ASC 740-30-50-2 would be the most helpful change to allow for the analysis of PRE. Removing this exception would require firms to disclose a dollar amount of the potential deferred tax liability. See Exhibit B for an example of a disclosure with the practicability exception and the same disclosure without the practicability exception. However, to date FASB is unwilling to remove this exception because of cost and complexity concerns that have existed since the original rule was enacted (FASB 2016a).

For example, there is uncertainty about future tax rates when repatriation would potentially occur and the method of repatriation of funds. There is also complexity associated with calculating U.S. foreign tax credits (Abahoonie and Barbut 2012). The more complexity and uncertainty present in the calculations, the more resources companies must expend to determine an accurate disclosure. FASB did consider a disclosure based on a simplified calculation of the deferred tax liability that assumed the foreign earnings would be remitted to the U.S. under currently enacted tax law. However, several board members did not think that this calculation would be representative of the amount and timing of future cash flows, and therefore FASB did not consider this proposal further (FASB 2016a).

Instead, the proposed FASB disclosure modifies the current disclosure to also require the disclosure of foreign cash, cash equivalents, and marketable securities. FASB believes that this addition will assist users in understanding how much of the unrepatriated foreign earnings are liquid and available for repatriation (FASB 2016a). It is unclear how users will interpret this information, especially in situations where there are more liquid assets than unrepatriated foreign earnings. For example when users are told there is $100 million of unrepatriated earnings and $200 million of liquid assets, will they understand that all the earnings can be repatriated or will they just be confused about why they are given this information?[8]

Hypotheses

Financial statement analysis requires conscious cognitive processing on the part of investors. Since conscious cognitive processing occurs in working memory, which can only handle a limited amount of information (Pass et al. 2003), investors who are inexperienced and do not have knowledge structures related to financial analysis may have difficulty making accurate investment judgments. The accounting literature has recognized for some time that attention and memory are factors that influence the

[8] Since it is unclear how the addition of this information will help users understand the tax situation of the company, I do not predict that the additional disclosure of cash, cash equivalents, and marketable securities will impact user judgments. In the discussion of my hypotheses, I consider the current disclosure to be similar to the proposed disclosure in that neither of them has a disclosure of a potential tax liability and do not make specific predictions about how these two conditions differ.

information processing of accounting information (e.g., Birnberg and Shields 1984), yet few studies have considered how simplifying the integration of information may affect nonprofessional investor judgments.

Prior research has made it clear that nonprofessional investors lack financial analysis skills. Maines and McDaniel (2000) indicate that nonprofessional investors' lack of accounting and finance knowledge generally leads to poorly defined decision models and unstructured information assimilation procedures when experiencing the high cognitive burden of making investment judgments. Additionally, Hodge et al. (2004) demonstrate that a sequential, rather than a directive, search process characterizes the behavior of less experienced investors who do not understand the relations among financial statements. As a result, less experienced investors are less accurate in their investment judgments (Hodge et al. 2004).

Simplifying information integration through increased transparency may appear to be the solution to the cognitive difficulties that nonprofessional investors face. Prior research has shown that individuals are biased in favor of that to which they are exposed (e.g., Brenner et al. 1996, Slovic 1972). People tend only to use information that is given to them, and only in the form it is given to them (Slovic 1972). Brenner et al. (1996) take this one step further by showing that even when people know they have incomplete information, they do not sufficiently compensate for that lack of information. A potential accounting-related consequence of these cognitive limitations is that individuals are insufficiently concerned about off-balance sheet liabilities (Hirschliefer and Teoh 2003). Thus, without increasing transparency investors may not recognize the importance or magnitude of missing information even though it is obvious they do not have all of the information needed to understand the implications of a footnote disclosure.

The estimated tax liability related to PRE is an example of an off-balance sheet contingent liability in that when a corporation elects to use the practicability exception, there is a potential liability that has not been disclosed on the financial statements, but could exist in the future. As the current disclosure of potential taxes on PRE does not require any specific amount to be disclosed, investors are required to use additional cognitive resources to locate and integrate information from various places in the financial statements to assist them in determining their own estimate of taxes on PRE should repatriation occur. Bauman and Shaw (2008) estimated taxes on PRE from financial statement information for corporations that had actually disclosed the estimate in their tax footnote. When they compared their estimates to the actual disclosure of the potential tax liability the authors' estimates were significantly lower than what the corporations actually disclosed. This suggests that without management's disclosure, it is difficult to accurately predict the amount of the potential tax liability. Consequently, on its face, increasing the transparency of the tax disclosure of PRE by disclosing a specific potential tax amount could improve investors' ability to understand the tax implications of PRE as it requires less effort and is more precise than any calculation an investor could perform himself.

However, increased transparency may also have an unintended effect. It is possible that providing additional information about a complex disclosure leads individuals to misinterpret the disclosure. For the same reasons that individuals may inappropriately rely on incomplete information, they may also rely on information that is explicitly displayed, without understanding the implications of the information (Slovic 1972). Increased transparency provides information that, because of nonprofessional investors' cognitive challenges in making investing judgments, will likely serve as an anchor that is not adjusted for properly, based on other relevant information (Slovic 1972).

None of the potential PRE disclosures indicate a tax liability exists; however, nonprofessional investors are likely to read the disclosure without consideration of the overall information content the disclosure is conveying; instead focusing on the disclosure of a specific tax amount and inferring that a liability exists. This leads to the first hypothesis:

> **H1:** Nonprofessional investors will assess a higher liability likelihood when they receive a disclosure containing a potential liability amount compared to a disclosure without a potential liability amount, and consequently, they will make lower investment attractiveness assessments.

The preceding hypothesis indicates a potential unintended effect of increased disclosure transparency based on the cognitive processing challenges nonprofessional investors face. However, without increased transparency about the tax implications of PRE, investors may experience a negative emotional reaction and feel misled if, as a result of changes in management's assertions, an unanticipated tax liability arises in the future. For example, management may intend to permanently reinvest foreign earnings when the disclosure is made, but later may have a need to repatriate cash creating an immediate tax due. Based on prospect theory (Kahneman and Tversky 1979) and attribution theory (see Kelley and Michela 1980 for a review of this literature), I make predictions regarding nonprofessional investors' reactions to the existence of an unexpected tax liability.

Similar to prior research on investor reactions to earnings surprises (e.g., Pinello 2008), I predict based on prospect theory that investors will experience a loss because they have not anticipated a future tax liability and therefore, will react more strongly to the occurrence of a tax liability. The strength of the reaction will be related to the disclosure received and the reason for the tax liability. When no disclosure of a potential tax liability is given to the investor, a stronger negative reaction to the loss will likely result as investors will feel more misled at the occurrence of an unanticipated liability. Predicated on attribution theory, the degree to which investors feel misled will be a result of whether the reason for the unexpected liability was within management's control or outside management's control.

When investors receive a disclosure of PRE and evaluate the income tax implications of the disclosure they will develop a reference point corresponding to their estimate of the tax that will be due in the future. Prospect theory suggests individuals evaluate outcomes based on changes in their welfare in relation to reference points (Kahneman and Tversky 1979). Based on the preceding hypothesis, it follows that certain reference points are more likely to exist depending on the disclosure received. For an investor who receives a disclosure that *does not* contain a potential tax liability amount, it is more likely that s/he has a reference point of zero than an investor who receives a disclosure that *does* contain a potential tax liability amount. The future actions of management (i.e., whether they repatriate any PRE or not) will determine whether investors view the tax related outcomes of those actions as gains, losses, or neutral. If a tax liability arises in the future, investors who had a reference point of zero (most likely those who did not receive a disclosure with a potential tax liability) will experience the strongest feelings of loss.

In addition to the magnitude of the loss, the strength of investor reactions will be influenced by the reason for the unanticipated income tax liability. Attribution theory suggests that responsibility for outcomes can be placed on both individual (e.g., a moral choice) and environmental (e.g., a stock market crash) factors (Kelley and Michela 1980). Responsibility attributions vary based on the outcome of the situation, the environmental pressures in the situation, and whether external justification is provided for the action. Shaw and Sulzer (1964) demonstrate when negative outcomes occur, there is greater attribution of responsibility to the individual rather than the external environment; however, higher environmental pressures reduce individual responsibility attributions. Additionally, when environmental pressures are high, observers who witness behaviors inconsistent with their expectations of appropriate behavior attribute the behavior to environmental factors. When environmental pressures are low, observers attribute the inconsistent behavior to individual traits (Trope 1974). Finally, Kelley and Michela (1980) conclude based on several of their reviewed studies, when an individual provides an external justification for an action that damages an observer, observers are less frustrated by the action than if no external justification is given. Therefore, differences in attribution are likely to be made by nonprofessional investors when an unanticipated tax liability arises based upon the reason for the liability.

When management voluntarily changes an assertion and the event prompting the change was foreseeable, nonprofessional investors are likely to assign greater responsibility to management and feel more misled by management than when environmental factors outside of management's control result in the change in assertion and cause the liability. This prediction is also supported by Brown and Solomon (1987) which demonstrates that evaluations of managerial decisions when failure occurs are harsher when the manager should have anticipated the outcome. The previous discussion leads to the following hypotheses:

> **H2a:** When an unanticipated liability arises, nonprofessional investors will have greater feelings of being misled when the financial disclosure they receive has not previously contained a potential liability amount compared to when the disclosure has contained a potential liability amount.
>
> **H2b:** When the reason for the unanticipated liability could have been reasonably anticipated by management, nonprofessional investors will have greater feelings of being misled than when the reason could not have been reasonably anticipated.
>
> **H2c:** Greater feelings of being misled on the part of nonprofessional investors will result in greater decreases in investment attractiveness assessments.

CHAPTER 3

METHOD

Participants

Participants are nonprofessional investors recruited from the Amazon Mechanical Turk (AMT) platform. In order to qualify for the study, participants passed screening questions indicating they are over 18, they have prior investment experience, they have taken at least one accounting or finance course, they have at least some college experience, and they have never worked as an investment professional. Also, participants are located in the U.S., have completed at least 500 HITs in AMT, and have a 95 percent rating on AMT. In total, six hundred forty-two participants passed the initial screening criteria and are eligible to complete the study. Additionally, there is a short background section with an associated knowledge quiz participants must pass to demonstrate they have a basic understanding of financial accounting and repatriation of foreign earnings. One hundred eighty-nine people failed this quiz, and thus did not proceed to the study, reducing my total participants to four hundred fifty-three.[9] Online workers seem suited to this task as they are honest, expend the same or more effort than other commonly used

[9] Questions similar to the screening questions were also asked at the end of the study and compared to the responses from the screening questions to verify that participants met the requirements of the study. If participants were simply answering the screening questions the way they thought they should to qualify for the study, but did not actually qualify, this method should identify those who were dishonest. Given that most individuals would not remember the screening questions by the end of the study, they should answer the demographic questions honestly. Though several participants gave conflicting responses about their age, since all participants were over 18, I did not remove any participants on the basis of an age discrepancy. However, four participants indicated they were investment professionals in the demographic questions and twelve had not taken at least one finance or accounting course. Analyses only include the 437 participants that answered consistently. Results including all 453 participants are not qualitatively different.

participants (i.e., students), and are reasonably educated and financially literate (Farrell et al. 2017). Participants receive a base payment of $1.50 and earn an additional $1 if they answer all three multiple-choice manipulation check questions correctly. Thirty-nine percent of participants earn the $2.50.

The average participant in the study is 38 years old, has a Bachelor's degree, makes between $50,000 and $75,000, and has taken 2.85 and 2.0 courses in accounting and finance, respectively. Participants have invested on average 52.17 times on their own behalf and 2.62 on behalf of others.[10] These and other demographic variables are tabulated in Table 3.1.

Design and Manipulations

Participants make judgments about the tax implications of PRE at a hypothetical company. The company is a mid-sized, publicly traded electronic device and software manufacturer and developer. I test my hypotheses with a 3x3 between-participant experiment. I manipulate disclosure type by presenting participants with three possible income tax disclosures of PRE based on the FASB's discussions regarding changes to the disclosure. The disclosure type is either the current income tax footnote disclosure related to PRE (CURRENT), the proposed FASB disclosure (PROPOSED), or an alternative disclosure that has elements the FASB has considered previously (ALTERNATIVE). See Appendix A for an excerpt of the instrument containing the experimental manipulations.

[10] Analyzing demographic items related to experience investing for oneself or others, number of accounting and finance courses, gender, age, education level, current work status, and current yearly household income shows that there are no significant differences across conditions. Participants' responses to their familiarity with the Trump tax proposal, confidence in evaluating investments, frequency of financial information analysis, frequency of financial information analysis regarding taxes, and familiarity with the tax implications of permanently reinvested earnings were also considered as potential covariates and none are significantly different across conditions. When participants were asked whether they had ever evaluated financial statements, there was a significant difference across conditions (p=.034), but including this item as a covariate does not change the results of the hypotheses testing.

The CURRENT disclosure contains a statement that the amount of the deferred tax liability for PRE is impracticable to calculate, as this is the predominant disclosure used in practice (CTJ 2016).[11] The PROPOSED disclosure modifies the CURRENT disclosure by including changes FASB has proposed as part of the new disclosure framework (as of September 2016). These changes require the disclosure of cash and cash equivalents of funds held outside the United States, and align with the major SEC-advocated disclosure changes (Molina 2013).[12] The ALTERNATIVE disclosure modifies the PROPOSED disclosure by including a range of the potential tax liability associated with PRE. The motivation for this condition is based on the desire users have for removing the practicability exception of ASC 740-30-25-17 and the FASB's initial consideration of proposing a disclosure based on a simplified calculation of the deferred tax liability that was not pursued further (FASB 2016a). I chose a range disclosure based on Kennedy et al. (1998) who show that a range disclosure prevents financial statement users from anchoring on a point estimate in a contingent liability situation. Though participants in Kennedy et al. (1998) did still try to find an anchor at the mid-point of the range, including a range for the contingent liability of taxes on PRE should help users understand there is uncertainty in the calculation and highlights the contingent nature of the liability.

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[11] While I label this condition CURRENT, I note here that companies are required to disclose a potential tax point estimate *unless* they make this assertion.

[12] Foreign earnings can be held in the form of any asset in the foreign jurisdiction. This modified disclosure provides users with an understanding of what earnings are in liquid assets and thus could reasonably be repatriated. If the foreign earnings are reinvested in property, plant, and equipment for example, they are unavailable for repatriation. Currently, users only see the total amount of earnings deemed permanently reinvested. See Blouin et al. (2014) for details about how companies reinvest their PRE. Additionally, under the proposed standards, corporations must report changes in assertions about PRE in the tax disclosure. This is not applicable in period one of my study.

I also manipulate the existence of an actual tax liability, varied at three levels and only applicable in the second period of the experiment. The existence of a tax liability is manipulated as either no tax liability (NONE), tax liability from a foreseeable change in management's assertions (ANTICIPATED), or tax liability from an unforeseeable change in management's assertions (UNANTICIPATED). The NONE condition reflects no change in management assertions and looks similar to the prior year. The ANTICIPATED condition reflects a change in management assertions in that management decided to repatriate previously designated PRE because the company needs to make the final payment on a 2012 acquisition. Participants are told that management was aware of the terms of the contract, but did not set aside funds for the payment, resulting in a $5 billion tax liability. In the UNANTICIPATED condition, a $5 billion tax liability has resulted as a consequence of repatriation for an acquisition that was made in the current year. Management assertions changed due to an event that was not foreseeable at the end of the previous year when they were deemed permanently reinvested.

Task and Procedure

After reading background information about the company and its foreign operations, participants are given a tax disclosure of PRE. They see either the CURRENT, PROPOSED, or ALTERNATIVE disclosure, depending on the condition to which they are assigned. The case materials do not contain the entire income tax footnote, but instead only contain an excerpt from the income tax footnote related to the company's PRE. The excerpt is a modified version of Apple, Inc.'s disclosure of its PRE. After reading the disclosure, participants indicate how attractive the company is as an investment as well as whether they believe a tax liability will ever exist. If they believe a liability will exist, they indicate an estimate of the U.S. taxes that will be paid and how likely it is that the company will repatriate some of its earnings that it has designated as permanently reinvested. All participants then experience a second period. Participants are told to imagine that a year has gone by and they are given another year of financial information and a new disclosure. Participants either find out the company had not changed its assertions or participants find out that a tax liability was incurred due to either a foreseeable or unforeseeable change in management's assertions. After receiving the period two information, participants again assess investment attractiveness and provide their perceptions of being misled. Finally, participants respond to a post-experimental questionnaire, including manipulation checks. The task took approximately 24 minutes for participants to complete.

Dependent Variables

There are two primary dependent variables in period one of the experiment. The first is participants' *investment attractiveness* assessments. The second primary dependent variable is participants' *likelihood assessments* about whether a tax liability exists related to the company's PRE. Participants first assess the *investment attractiveness* to prevent their likelihood assessments from influencing their attractiveness assessments. Participants also estimate the company's potential tax liability on PRE and how likely it is that the company will repatriate some of its PRE.[13]

[13] I predict that participants in the CURRENT and PROPOSED conditions will have a low estimate of the company's potential tax liability. However, it is possible without any estimate from management that participants will estimate a tax liability using their knowledge of the corporate tax rate of 35 percent. This will always overestimate the potential tax liability since it does not take into account any foreign tax credit that the U.S. provides for income taxes paid to foreign jurisdictions. If participants in the CURRENT and PROPOSED conditions estimate a tax liability based on a 35 percent corporate rate, this biases against the hypotheses.

In period two of the experiment, there are also two primary dependent variables. The first is participants' *period two investment attractiveness* assessment. Prior to making the period two investment attractiveness assessment, participants are reminded of their period one judgments.[14] The second is participants' perceptions regarding how *misled* they felt as a result of the existence of a tax liability in period two. The response scale for feelings of being misled is adapted from a scale used in the marketing literature (Newell et al. 1998).[15]

[14] Participants are reminded of their period one judgments because they would otherwise be required to perfectly recall their initial judgments after distraction by the period two information or be impacted by recall error. To avoid error, I provide assistance in the form of a reminder of their initial judgments. Prior research (e.g., Arunachalam and Beck 2002) has also used reminders of prior period judgments before participants make a current judgment.

[15] Newell et al. (1998) refer to their scale as a measure of deception. However, only one item contains the word deception and overall the items capture participants' feelings about how misled they feel. The items are displayed in Appendix A.

Table 3.1 Demographic Information

	Mean	Median	SD	n
Number of times invested for self	52.17	10.00	146.10	437
Number of times invested for others	2.62	0.00	14.68	437
Confidence in investment ability	59.59	63.00	21.22	437
Familiarity with PRE	32.57	28.00	27.04	437
How often evaluate financial information	40.81	35.00	27.09	437
How often evaluate corporate taxes	22.72	15.00	22.81	437
Familiarity with Trump tax plan	32.62	29.00	26.50	437
Accounting classes taken	2.85	2.00	3.62	437
Finance classes taken	2.00	1.00	2.40	437
Education (% bachelor's or higher)	80.1%			437
Employment status (% full-time)	79.9%			437
Income (% below 100k)	77.3%			437
Gender (% Female)	36%			436
Age	37.96	35.00	10.97	437

Notes:
Confidence is reported on a 0-100 scale with 100 representing very confident and 0 representing not at all confident.

Familiarity questions are reported on a 0-100 scale with 100 representing very familiar and 0 representing not familiar at all.

Frequency of evaluating financial and tax information questions are reported on a 0-100 scale with 100 representing very often and 0 representing not often at all.

CHAPTER 4

RESULTS

Manipulation Checks

Participants respond to three manipulation check items to see whether they can correctly identify the condition to which they are assigned. First, participants are asked whether the case materials contained a range of the unrecognized potential tax liability in the tax footnote. Sixty-eight percent of participants answered this question correctly. Second, participants are asked whether the tax footnote contained an amount for cash, cash equivalents and marketable securities. Sixty-three percent of participants answered this question correctly. Forty-four percent passed both manipulation check items related to the footnote condition to which they were assigned. While this is a low pass rate, removing those who failed one of the first two manipulation check questions does not qualitatively alter the results of the footnote effects demonstrated in the hypothesis testing below. Third, participants are asked whether LDN, Corp. was paid a dividend from a foreign subsidiary. Eighty-two percent of participants answered this question correctly. Finally, participants who respond “yes” to the third manipulation check item are asked whether management could have anticipated the reason for the dividend prior to 2017 or not, on a scale of 0-100, where 0=Definitely could not have anticipated and 100=Definitely could have anticipated. There is a significant difference between those in the ANTICIPATED (mean of 75.50) and UNANTICIPATED (mean of 59.71) conditions

($p < 0.001$), indicating the manipulation was successful.[16] My analyses include all participants.

Tests of H1

H1 predicts that nonprofessional investors will have higher *likelihood assessments* of a tax liability and lower *investment attractiveness* assessments when they receive a disclosure that contains a potential tax liability amount compared to when the disclosure makes no specific mention of a tax liability amount. To test H1, I first conduct a chi-square test to determine if there is a difference across disclosure conditions between those who believe LDN, Corp. would ever pay U.S. tax on its permanently reinvested foreign earnings and those who do not. As shown in Table 4.1, Panel A, there is no difference in *likelihood assessments* between footnote conditions ($p = 0.45$). Since only 20 participants out of 437 believe a liability would ever exist, no test of a specific likelihood is conducted.

Next, I conduct an ANOVA with *investment attractiveness* judgments as the dependent variable and disclosure type as the independent variable. Table 4.1, Panel B shows there is not a significant difference in *investment attractiveness* judgments across disclosure type ($p = 0.46$). I further evaluate planned contrasts between each disclosure type and find no significant differences for any contrasts (smallest $p = 0.35$). Only the contrast directly related to H1 is tabulated in Table 4.1, Panel C. One explanation for these results may be that it was difficult for participants to understand the footnote because of the complexity of the financial information presented. I asked participants "How easy was the information in the income tax footnote to understand regarding the

[16] All p-values are one-tailed unless otherwise noted.

tax implications of the company's permanently reinvested foreign earnings?" on a scale from 0-100, with 0=very difficult to understand and 100=very easy to understand. There were no differences across conditions and the average response was 75.29. Thus, participants believe they understand the footnote; however, the results suggest they focus on management assertions rather than the range of the potential tax liability. I also perform the tests of H1 including only those who passed both manipulation check questions regarding their assigned footnote condition. The results are qualitatively similar to the results in Table 4.1, suggesting that even for participants who are sure about what condition they are in, the explicit disclosure of an economic value does not have a significant effect on their judgments. Therefore, H1 is not supported. Participants appear to focus on management's assertions rather than the possibility of a future tax liability, even when presented with a footnote that includes a range disclosure.

Tests of H2

Though I acknowledge that when repatriation occurs participants, regardless of condition, may feel *misled* and revise their *investment attractiveness* assessments downward, H2a, in conjunction with H2c, predicts this effect will be larger when nonprofessional investors do not receive a disclosure that contains a potential tax liability amount in period one. H2b, in conjunction with H2c, predicts this effect will also be greater when the reason the tax liability arose should have been anticipated by management. Therefore, participants in the ANTICIPATED and CURRENT or PROPOSED conditions are predicted to have the greatest feelings of being *misled* and the greatest decreases in *investment attractiveness* assessments. Descriptive statistics for the feelings of being misled and changes in attractiveness by condition are presented in Table

4.2, Panels A&B, while the items asked to capture feelings of being misled are in Appendix A.

To test H2a, I use a planned contrast to determine whether the disclosures *not* containing a tax liability led to greater feelings of being *misled* than the disclosure containing a tax liability. The contrasts are .5 for CURRENT, .5 for PROPOSED, and -1 for ALTERNATIVE. I use the average of the responses to the six item scale adapted from Newell et al. (1998) for the variable, feelings of being *misled*.[17] H2a is not supported as the contrast, presented in Table 4.3, Panel A, is not significant (p = 0.15).

To test H2b, I use a planned contrast to determine whether greater feelings of being *misled* result when management could reasonably anticipate the repatriation compared to when management could not reasonably anticipate it. H2b is confirmed as seen in Table 4.3, Panel A. The contrast is significant ($p < 0.001$), and the mean for ANTICIPATED (4.14) is higher than for UNANTICIPATED (3.67), indicating that when repatriation could be anticipated, participants feel more *misled*. Though not specifically hypothesized, I also test how the NONE condition compared to both the ANTICIPATED and UNANTICIPATED conditions. Participants in the NONE condition felt the least *misled* (2.86) and this is significantly different from those in both repatriation conditions (both $p < 0.001$, untabulated).

As a supplemental analysis to H2a and H2b which only predict the effects of investors' feelings of being *misled*, I perform the same planned contrasts with *investment attractiveness* changes as the dependent variable in Table 4.3, Panel B. Similar to the test of H2a above, disclosure type is not significant to changes in investors' *attractiveness*

[17] Using all items is appropriate given that the six items had a Cronbach's alpha of .96 and loaded on one factor with an eigen value of 5.014 when performing a principal component analysis.

assessments ($p = 0.35$). However, similar to the test of H2b above, the reason for repatriation is significantly related to changes in investors' *attractiveness* assessments ($p = 0.01$), with the average for those in the ANTICIPATED conditions decreasing by 6.57, and the average for those in the UNANTICIPATED conditions decreasing by 2.58. NONE had an average *increase* in *attractiveness* of 2.44 and was significantly different than both ANTICIPATED and UNANTICIPATED (both $p < 0.005$, untabulated).

To test H2c, I perform a regression analysis, displayed in Table 4.3, Panel C with changes in *investment attractiveness* as the dependent variable and feelings of being *misled* as the independent variable. The regression shows that greater feelings of being *misled* leads to greater decreases in *attractiveness* ($p < 0.001$; $\beta = 0.374$), confirming H2c.[18]

Discussion

My primary analyses demonstrate that contrary to my prediction, nonprofessional investors are not differentially affected by footnote disclosures with or without a potential tax liability disclosed. They seem to focus on management's assertions about their intention to permanently reinvest their foreign earnings, and do not anchor on the estimated tax liability presented. The results also show that nonprofessional investors feel misled by management when they repatriate foreign earnings after making an assertion that they had no intention of doing so; this is consistent with the interpretation of the H1 results that the participants focused on management's period one assertion. Further, feelings of being misled are exacerbated if the reason management repatriated the

[18] In both the supplemental analysis and the H2c analysis, running the analysis using *investment attractiveness* from period 2 as a dependent variable and *investment attractiveness* from period 1 as a covariate, leads to qualitatively similar results.

earnings was an event they could have reasonably foreseen. As a result of feeling misled, nonprofessional investors find the investment less attractive. Though the increased transparency in financial information disclosures did not affect investor judgments, when management assertions are not accurate, investors who receive any of the possible footnote disclosures react negatively.

To shed additional light on participants' thought processes, participants are able to provide a free response to the question "What additional information would have helped you in understanding the tax implications of LDN Corp.'s permanently reinvested foreign earnings?" Interestingly, responses to this question indicate a desire for management to give an honest assessment of their business situation, more details on the intended use of PRE, an industry average of how often companies repatriate PRE, the company's history of repatriating PRE, and more information about the tax implications of PRE. See Table 4.4 for a tabulation of these responses. Several of these common responses support the implications of this study. Nonprofessional investors want more information about management's assertions beyond the standard language that they intend to permanently reinvest foreign earnings and it is not practical for them to estimate the tax liability. The SEC also wants companies to disclose more information related to their PRE. In Exhibit A, the excerpts from the SEC comment letters indicate that more information supporting management's assertions about the permanent reinvestment in light of past actions or present circumstances is warranted. Changes of this nature may be more beneficial to investors given that they want to have information about the tax implications of PRE; however, as demonstrated by my study, explicit disclosures related to the economic value potentially involved does not affect their judgments.

Table 4.1 Hypothesis 1

Panel A: Chi-Square Test of Likelihood Assessment

	Current	Proposed	Alternative	Total	*p*<
Yes	4.0%	4.1%	5.0%	4.3%	0.45
No	96.0%	95.9%	95.0%	95.7%	
n	151	145	141	437	

Participants indicated whether LDN, Corp. would ever pay U.S. tax on its permanently reinvested earnings.

Panel B: Analysis of Variance of Attractiveness Assessment

Source	df	Type I SS	Mean Square	F value	*p*<
Footnote	2	50.28	25.14	.082	0.46
Error	434	13,2896.55	306.21		

Panel C: Planned Contrast of Attractiveness

	Contrast Value	t value	*p*<
Current and Proposed > Alternative	-.53	.297	0.38

Panel D: Means, <Medians>, (SD), and [n] for Attractiveness

Current	Proposed	Alternative
62.90	63.46	63.71
<65.00>	<66.00>	<70.00>
(16.68)	(17.50)	(18.34)
[151]	[145]	[141]

Notes:
The attractiveness assessment is on a 101-point scale, where 0 is very unattractive and 100 is very attractive.

All p-values are one-tailed.

Table 4.2 Dependent Variable Descriptive Statistics

Panel A: Means, <Medians>, (SD), and [n] for Feelings of Being Misled By Condition

	Current	Proposed	Alternative
No Repatriation	2.77	2.99	2.82
	<2.58>	<2.50>	<2.50>
	(1.20)	(1.16)	(1.11)
	[52]	[49]	[48]
Foreseeable Repatriation	4.13	4.11	4.19
	<4.58>	<4.33>	<4.17>
	(1.45)	(1.32)	(1.24)
	[48]	[50]	[44]
Not Foreseeable Repatriation	3.83	3.79	3.55
	<4.00>	<3.75>	<3.50>
	(1.43)	(1.42)	(1.28)
	[51]	[46]	[49]

Feelings of Being Misled is the average of participant responses to the six items identified in Appendix A.

Panel B: Means, <Medians>, (SD), and [n] for Change in Attractiveness by Condition

	Current	Proposed	Alternative
No Repatriation	2.13	1.88	3.35
	<5.00>	<4.00>	<3.00>
	(13.93)	(18.95)	(11.89)
	[52]	[49]	[48]
Foreseeable Repatriation	-7.52	-5.52	-6.73
	<-7.00>	<-5.00>	<-5.50>
	(15.53)	(11.23)	(16.53)
	[48]	[50]	[44]
Not Foreseeable Repatriation	-0.98	-3.11	-4.67
	<0.00>	<0.00>	<0.00>
	(14.52)	(15.27)	(18.47)
	[51]	[46]	[49]

Table 4.3 Hypothesis 2

Panel A: Planned Contrast for H2a and b for Feelings of Being Misled

	Contrast Value	t value	*p*<
Current and Proposed > Alternative	.15	1.030	0.15
Foreseeable Repatriation > Not Foreseeable Repatriation	.47	3.059	0.001

Panel B: Planned Contrasts for Supplemental Analysis for Change in Attractiveness

	Contrast Value	t value	*p*<
Current and Proposed > Alternative	.61	.38	0.35
Foreseeable Repatriation > Not Foreseeable Repatriation	3.99	2.216	0.014

Panel C: Regression for H2c – Change in Attractiveness

Source	df	SS	Mean Square	F value	*p*<
Feelings of Being Misled	1	14,946.20	14,946.20	70.553	0.001
Error	435	92,151.94	211.84		

Notes:

All p-values are one-tailed.

Table 4.4 Tabulation of Free Response Question

Information Requested	n	Percentage
Description of possible future repatriation events	56	27.45%
More details regarding acquisition	42	20.59%
How the company uses its PRE	30	14.71%
Estimated tax upon repatriation	29	14.22%
US tax code/law information	16	7.84%
Foreign tax rates/information	14	6.86%
Company repatriation history	9	4.41%
Industry repatriation history	8	3.92%

Participants responded to "What additional information would have helped you in understanding the tax implications of LDN Corp.'s permanently reinvested foreign earnings?"

CHAPTER 5

CONCLUSION

This study investigates how nonprofessional investors react to increasing the transparency of complex financial accounting disclosures. Investors indicate that they value increased transparency; however, increased transparency does not lead investors to make different judgments. Even with increased transparency, management assertions appear to be much more persuasive than any potential dollar amount disclosed as a potential liability. Yet, without increased transparency, investors react negatively to circumstances they were unable to foresee as a result of the financial information left undisclosed.

As with any experiment, there are limitations. First, the materials provided to the participants are modified to be shorter and contain only the information most relevant to the study. The financial statement information and tax footnote in an annual report would be much more detailed and provide additional information; however, due to the time constraints of participants, only abbreviated information is provided. Second, this study only examines the perceptions of nonprofessional investors. While FASB is definitely concerned with the behavior of nonprofessional investors, they do consider other stakeholders that this study does not address. Third, the context of this experiment is just one option among many possible complex accounting areas. Future research could address some of these limitations by exploring the reactions of other FASB constituents (such as professional investors) and investigating other complex accounting areas.

Testing my research question in another complex setting is expected to yield the same results based on management assertions driving investor judgments.

This paper contributes to the academic literature and to on-going regulatory debates surrounding appropriate disclosure of financial information. This study contributes broadly to the accounting literature by offering insight into the complex relations between accounting standards and tax regulations (i.e., tax deferral of PRE) as it relates to financial reporting. My results also expand the disclosure literature to the income tax area and indicate that disclosing more detailed financial information about a potential tax liability does not lead nonprofessional investors to believe that a liability may be incurred. Instead, investors appear to be more influenced by management's assertions, assertions that can and do change over time as demonstrated by Usvayatsky and McKeon (2016).

These results also have direct implications for standard setters as they debate changes to the disclosure of income taxes. This study demonstrates that there are difficult tradeoffs for policymakers. Prior accounting literature offers mixed results on the benefits of transparency (e.g., Li 2008, Robinson and Schmidt 2013, Armstrong et al. 2015). The results of this study provide further insight regarding the effects of increased transparency. My results demonstrate that while nonprofessional investors say they value increased transparency, receiving a more explicit disclosure of an economic value, such as the range of a potential tax liability, does not impact their judgments. They anchor on the assertions given by management and then react strongly to changes in management assertions. Based on these results, standard setters should pay careful attention not only to the numerical items presented in disclosures of complex financial accounting areas, but should also scrutinize management’s nonnumeric assertions. Future research could explore how to better help investors process information knowing that words speak louder than numbers.

REFERENCES

Abahoonie, E., and Y. Barbut. 2012. *Undistributed Foreign Earnings: Disclosure Requirements and Considerations.* Available at: http://www.pwc.com/en_US/us/cfodirect/assets/pdf/practical-tip-2012-03-apb-23-disclosure.pdf

Apple, Inc. (2015). *Annual report 2015*. Retrieved from: http://investor.apple.com/secfiling.cfm?filingid=1193125-14-383437

Arunachalam, V., and G. Beck. 2002. Functional fixation revisited: The effects of feedback and a repeated measures design on information processing changes in response to an accounting change. *Accounting, Organizations and Society.* 27 (1/2): 1-25.

Armstrong, C.S., D.J. Taylor, and R.E. Verrecchia. 2016. Asymmetric Reporting. *Journal of Financial Reporting.* 1(1): 15-32.

Bauman, M.P. and K.W. Shaw. 2008. The usefulness of disclosures of untaxed foreign Earnings in firm valuation. *The Journal of the American Taxation Association.* 30(2): 53-77.

Birnberg, J.G. and M.D. Shields. 1984. The role of attention and memory in accounting decisions. *Accounting, Organizations and Society.* 9(3/4): 365-382.

Blouin, J.L., L.K. Krull, and L.A. Robinson. 2014. The location, composition, and investment implications of permanently reinvested earnings. Working paper. University of Pennsylvania, University of Oregon, and Dartmouth College.

Brenner, L.A., D.J. Koehler, A. Tversky. 1996. On the evaluation of one-sided evidence. *Journal of Behavioral Decision Making.* 9: 59–70.

Brown, C.E. and I. Solomon. 1987. Effects of outcome information on evaluations of managerial decisions. *The Accounting Review.* 62(3): 564-577.

Citizens for Tax Justice (CTJ). 2012. *Fortune 500 Corporations Holding $1.6 Trillion in Profits Offshore.* Available at: http://ctj.org/pdf/unrepatriatedprofits.pdf

Citizens for Tax Justice (CTJ). 2016. *Fortune 500 Corporations Hold a Record $2.4 Trillion Offshore.* Available at: http://ctj.org/pdf/pre0316.pdf

Deloitte. 2015. *A Roadmap to Accounting for Income Taxes.* New York, NY: Deloitte & Touche LLP.

Farrell, A.M., J.H. Grenier, and J. Leiby. 2017. Scoundrels or stars? Theory and evidence on the quality of workers in online labor markets. *The Accounting Review.* 92(1): 93-114.

Financial Accounting Standards Board (FASB). 2009. *Income Taxes—Overall. FASB Codification Subtopic 740-30*. Norwalk, CT: FASB.

Financial Accounting Standards Board (FASB). 2016a. *Proposed Accounting Standards Update- Income Taxes (Topic 740).* Norwalk, CT: FASB.

Financial Accounting Standards Board (FASB). 2016b. *Investor Advisory Committee Charter.* Norwalk, CT: FASB.

Fleischer, V. 2012, October 3. Overseas Cash and the Tax Games Multinationals Play. *The New York Times.* Available at: http://dealbook.nytimes.com/2012/10/03/overseas-cash-and-the-tax-games-multinationals-play/

Gelles, D. and M.J. de la Mercad. 2015, April 10. G.E.'s Retrieval of Overseas Cash Revives Tax Debate. *The New York Times*. Available at: https://www.nytimes.com/2015/04/11/business/dealbook/general-electrics-move-on-overseas-cash-highlights-tax-debate.html?_r=0

GE (2014). *Annual report 2014*. Retrieved from http://www.ge.com/ar2014/.

GE (2015). *Annual report 2015*. Retrieved from http://www.ge.com/ar2015/.

Graham, J.R., J.S. Ready, and D.A. Shackelford. 2012. Research in accounting for income taxes. *Journal of Accounting and Economics.* 53: 412-434.

Hirshleifer, D. and S.H. Teoh. 2003. Limited attention, information disclosure, and financial reporting. *Journal of Accounting and Economics.* 36: 337-386.

Hodge, F.D., J.J. Kennedy, and L.A. Maines. 2004. Does search-facilitating technology improve the transparency of financial reporting? *The Accounting Review.* 79(3): 687-703.

Hopkins, P.E. 1996. The effect of financial statement classification of hybrid financial instruments on financial analysts' stock price judgments. *Journal of Accounting Research.* 34: 3-50.

Kahneman, D. and A. Tversky. 1979. Prospect theory: An analysis of decision under risk. *Econometrica*. 47(2): 263-291.

Kelley, H.H. and J.L. Michela. 1980. Attribution theory and research. *Annual Review of Psychology*. 31: 457-501.

Kennedy, J., T. Mitchell, and S.E. Sefcik. 1998. Disclosure of contingent environmental liabilities: Some unintended consequences? *Journal of Accounting Research.* 36(2): 257-277.

Li, Feng. 2008. Annual report readability, current earnings, and earnings persistence. *Journal of Accounting & Economics.* 45: 221-247.

Libby, R., R. Bloomfield, and M.W. Nelson. 2002. Experimental research in financial accounting. *Accounting, Organizations and Society.* 27:775-810

Libby, R. and S.A. Emett. 2014. Earnings presentation effects on manager reporting choices and investor decisions. *Accounting and Business Research.* 44(4): 410-438.

Maines, L.A. and L.S. McDaniel. 2000. Effects of comprehensive-income characteristics on nonprofessional investors' judgments: the role of financial-statement presentation format. *The Accounting Review.* 75(2): 179-207.

Molina, R. 2013, Apr 1. An old accounting standard needs to tie into a new tax policy. *Tax Notes.*

Newell, S.J., R.G. Goldsmith, and E.J. Banzhaf. 1998. The effect of misleading environmental claims on consumer perceptions of advertisements. *Journal of Marketing Theory and Practice.* 6(2): 48-60.

Norris, F. 2009, June 4. Tax Break for Profits Went Awry. *The New York Times.* Available at: http://www.nytimes.com/2009/06/05/business/05norris.html

Pass, F., A. Renkl, and J. Sweller. 2003. Cognitive load theory and instructional design: recent developments. *Educational Psychologist.* 38(1): 1-4.

Pinello, A.S. 2008. Investors' differential reaction to positive versus negative earnings surprises. *Contemporary Accounting Research.* 25(3): 891-920.

Pomerleau, K. 2015, October 1. Corporate income tax rates around the world, 2015. *The Tax Foundation.* Available at: https://taxfoundation.org/corporate-income-tax-rates-around-world-2015

PwC. 2018. *In Depth: A Look at Current Financial Reporting Issues. Frequently Asked Questions: Accounting Considerations of US Tax Reform (updated as of February 1, 2018.* Available at: https://www.pwc.com/us/en/cfodirect/assets/pdf/in-depth/us2018-01-us-tax-reform-accounting-faqs.pdf

Robinson, L.A. and A.P. Schmidt. 2013. Firm and investor responses to uncertain tax benefit disclosure requirements. *Journal of the American Taxation Association.* 35(2): 85-120.

Securities Industry and Financial Markets Association (SIFMA). 2017. *2017 Fact book.* New York, NY: SIFMA.

Shaw, M.E. and J.L. Sulzer. 1964. An empirical test of Heider's levels in attribution of responsibility. *Journal of Abnormal and Social Psychology*. 69(1): 39-46.

Slovic, P. 1972. From Shakespeare to Simon: Speculations and some evidence about man's ability to process information. Oregon Research Institute Research Bulletin, April.

Trope, Y. 1974. Inferential processes in the forced compliance situation: A Bayesian analysis. *Journal of Experimental Social Psychology*. 10: 1-16.

Usvyatsky, O. and J. McKeon. 2016. *Tax Implications of IRFE Repatriation.* Available at: http://www.auditanalytics.com/blog/tax-impliations-of-irfe-repatriation/

APPENDIX A

EXCERPTS FROM INSTRUMENT

FINANCIAL INFORMATION

Below is selected 2016 financial information provided by the management of LDN, Corp. On the next screen, you will see the portion of the income tax footnote that is relevant to this case study.

Selected Financial Information	**LDN, Corp.**	**Industry Averages**
Revenue Growth	6.95%	6.50%
Earnings Before Taxes (in millions)	$53,483	$55,925
Income Tax Expense (in millions)	$13,973	$14,228
Net Income (in millions)	$39,510	$41,697
Effective Tax Rate (ETR)	26.13%	25.44%
Earnings per share (EPS)	$6.49	$6.20
Total Assets (in millions)	$231,839	$225,356
Cash, Cash Equivalents, and Marketable Securities (in millions)	$155,239	$154,540
Total Liabilities (in millions)	$120,292	$112,750
Total Equity (in millions)	$111,547	$112,606

Excerpt from LDN's Note X – Income Taxes – Information about permanently reinvested earnings

As of December 31, 2016, U.S. income taxes have not been recognized on a total of $91.5 billion of unrepatriated foreign earnings. The Company intends to permanently reinvest these earnings outside the U.S. **[Insert Manipulation here].**

Manipulations

Current Disclosure	FASB Proposed Disclosure	Alternative Disclosure
It is not practical to estimate the amount of U.S. tax that might be payable on the eventual repatriation of these earnings.	*It is not practical to estimate the amount of U.S. tax that might be payable on the eventual repatriation of these earnings.* *As of December 31, 2016, $137.1 billion of the Company's cash, cash equivalents and marketable securities were held by foreign subsidiaries.*	*The amount of unrecognized deferred tax liability related to these earnings is estimated to be between $20.59 and $32.03 billion.* *As of December 31, 2016, $137.1 billion of the Company's cash, cash equivalents and marketable securities were held by foreign subsidiaries.*

Thank you for looking through the case materials. Please answer the questions below based on the information you received in the case. If you would like, you may look at the case materials while on this screen by clicking on the box below.

1. How attractive do you find LDN, Corp. as an investment?

0 10 20 30 40 50 60 70 80 90 100

Very Unattractive — Very Attractive

2. Based on the information provided to you in the case, do you believe that LDN, Corp. will ever pay U.S. tax on the foreign earnings it says it will permanently reinvest in foreign countries?
   a. Yes
   b. No

3. If so, what is your best estimate of the amount of U.S. taxes the corporation will pay on the foreign earnings it describes as permanently reinvested?

   _____________ billion

4. How likely do you think it is that sometime in the future LDN, Corp. will decide to repatriate some of the earnings it has designated as permanently reinvested, and thus have to actually pay U.S. tax on those earnings?

0 10 20 30 40 50 60 70 80 90 100

Very Unlikely — Very Likely

PART 2

FINANCIAL INFORMATION

Assume that one year has passed and it is now the end of LDN's 2017 fiscal year. Below is selected financial information from the management of LDN, Corp. for 2017. On the next page, you will again receive the portion of the 2017 income tax footnote that is relevant to this case.

Selected Financial Information	LDN, Corp.	Industry Averages
Revenue Growth	7.02%	6.78%
Earnings Before Taxes (in millions)	$58,096	$63,130
Income Tax Expense (in millions)	$16,125	$18,823
Net Income (in millions)	$41,971	$44,307
Effective Tax Rate (ETR)	27.76%	29.82%
Earnings per share (EPS)	$7.41	$7.06
Total Assets (in millions)	$228,369	$249,786
Cash, Cash Equivalents, and Marketable Securities	$205,666	$197,018
Total Liabilities (in millions)	$114,113	$134,912
Total Equity (in millions)	$114,256	$114,874

As you look at the income tax footnote, you notice that LDN Corp. has updated its disclosure related to permanently reinvested foreign earnings for the year to say:

No Repatriation:

As of December 31, 2017, U.S. income taxes have not been recognized on a total of $91.5 billion of unrepatriated foreign earnings. The Company intends to permanently reinvest these earnings outside the U.S. **[Insert Manipulation here].**

Repatriation – Management Able to Foresee Need

Prior to 2017, the Company intended to permanently reinvest $91.5 billion of its foreign earnings. No U.S. income tax expense was recorded on these earnings.

In 2012, the Company purchased NDF, Inc. Although management was aware the terms of the 2012 contract called for a final payment of $10.3 billion due in 2017, the Company did not have funds set aside for this payment. Thus, one of the Company's foreign subsidiaries paid the Company a dividend of $15.3 billion of foreign earnings that had previously been identified as permanently reinvested. As a result, the Company immediately paid U.S. income taxes of $5 billion. This increased their income tax expense by $5 billion as well since it had not recorded a liability for this tax.

The Company intends to permanently reinvest the remaining $76.2 billion of foreign earnings outside of the U.S. Therefore, it has not recognized U.S. income tax expense on these earnings. **[Insert Manipulation here].**

Repatriation – Management Not Able to Foresee Need

Prior to 2017, the Company intended to permanently reinvest $91.5 billion of its foreign earnings. No U.S. income tax expense was recorded on these earnings.

In 2017, the Company purchased NDF, Inc. To pay the $10.3 billion purchase price, one of the Company's foreign subsidiaries paid the Company a dividend of $15.3 billion of foreign earnings that had previously been identified as permanently reinvested. As a result, the Company immediately paid U.S. income taxes of $5 billion. This increased its income tax expense by $5 billion as well since it had not recorded a liability for this tax.

The Company intends to permanently reinvest the remaining $76.2 billion of foreign earnings outside of the U.S. Therefore, it has not recognized U.S. income tax expense on these earnings. **[Insert Manipulation here].**

Manipulations

Current Disclosure	FASB Proposed Disclosure	Alternative Disclosure
It is not practical to estimate the amount of U.S. tax that might be payable on the eventual repatriation of such earnings.	*It is not practical to estimate the amount of U.S. tax that might be payable on the eventual repatriation of such earnings.* *As of December 31, 2017, $137.1 [121.8 for repatriation conditions] billion of the Company's cash, cash equivalents and marketable securities were held by foreign subsidiaries.*	*The amount of unrecognized tax on these earnings is estimated to be between $20.59[15.59 for repatriation conditions] and $32.03 [27.03 for repatriation conditions] billion.* *As of December 31, 2017, $137.1 [121.8 for repatriation conditions] billion of the Company's cash, cash equivalents and marketable securities were held by foreign subsidiaries.*

Please respond to the items below taking into consideration the information you received in part two of the case, that is, the information from the most recent year. You may look back, if needed, at the 2017 case materials as you answer the items on the screen by clicking on the box below.

1. After reviewing the 2017 tax disclosure (most recent year), please indicate your agreement or disagreement with the following statements about the **previous tax disclosure (2016)**:

	Strongly Disagree	Disagree	Some-what Disagree	Neither Agree nor Disagree	Some-what Agree	Agree	Strongly Agree
The 2016 tax disclosure was accurate.	☐	☐	☐	☐	☐	☐	☐
The 2016 tax disclosure was misleading.	☐	☐	☐	☐	☐	☐	☐
The 2016 tax disclosure was truthful.	☐	☐	☐	☐	☐	☐	☐
The 2016 tax disclosure was deceptive.	☐	☐	☐	☐	☐	☐	☐
The 2016 tax disclosure was factual.	☐	☐	☐	☐	☐	☐	☐
The 2016 tax disclosure was distorted.	☐	☐	☐	☐	☐	☐	☐

2. You rated the attractiveness of LDN Corp. as _____ out of 100. How would you rate LDN Corp.'s attractiveness after viewing the 2017 financial information?

0 10 20 30 40 50 60 70 80 90 100

Very Unattractive — Very Attractive

EXHIBIT A

EXAMPLES OF SEC COMMENT LETTERS

Deloitte (2015, pg. 409) provides some excerpts from SEC comment letters related to the disclosure of the tax consequences of PRE.

"We note from your disclosure on page [X] that if you are required to pay the arbitration award, the award would be paid from one of your foreign subsidiaries using cash that is currently intended to be indefinitely reinvested. Please tell us whether you have accrued U.S. income tax on the funds that will be repatriated to pay the arbitration award. If you have, please clarify your disclosures in future filings. If you have not accrued taxes, please tell us why you do not believe it is necessary to do so considering that you believe it is probable that the award will be paid. See ASC 740-30-25-19."

"We note that you have significant foreign operations which resulted in tax obligations. In this regard, please tell us whether you hold significant cash amounts in foreign jurisdictions with favorable tax rates. If so, please tell us the impact that repatriating such amounts would have on your income taxes and results of operations, or clearly indicate that such amounts are permanently reinvested. In addition, please tell us whether you previously repatriated funds as well as whether you can meet your obligations, including dividend payments, with available funds, without repatriating such amounts. If meeting such obligations is not possible without the repatriating amounts held in jurisdictions with favorable tax rates, please revise to include appropriate disclosure in your dividend policy section, on page [X], as well as in your liquidity and capital resources discussion within MD&A."

"We see from pages [X] and [X] that [X%] of your revenue is generated from customers located outside of the United States and that deferred tax liabilities have not been recognized for $[X] of undistributed earnings of foreign subsidiaries due to your intention to permanently reinvest such earnings. Please revise future filings to disclose the amount of cash and cash equivalents as well as liquid investments held by your foreign subsidiaries at year end and quantify any amounts that would not be available for use in the U.S. without incurring U.S taxes."

"In light of the fact that your foreign subsidiary has paid significant dividends to the parent company in each of the last three years it is unclear how you have determined that all of the undistributed earnings of foreign subsidiaries are considered permanently reinvested. Please tell us and provide proposed disclosure detailing what sufficient evidence you have to support your assertion per ASC 740-30-25-17."

EXHIBIT B

EXAMPLE DISCLOSURES BASED ON APPLE, INC. 2015 ANNUAL REPORT

Disclosure if the company used the practicability exception:

The Company's consolidated financial statements provide for any related tax liability on undistributed earnings that the Company does not intend to be indefinitely reinvested outside the U.S. As of December 31, 2015, U.S. income taxes have not been provided on a cumulative total of $91.5 billion of such earnings. ***It is not practicable to estimate the amount of U.S. tax that might be payable on the eventual remittance of such earnings.***

Disclosure if the company did not use practicability exception:

The Company's consolidated financial statements provide for any related tax liability on undistributed earnings that the Company does not intend to be indefinitely reinvested outside the U.S. As of December 31, 2015, U.S. income taxes have not been provided on a cumulative total of $91.5 billion of such earnings. ***The amount of unrecognized deferred tax liability related to these temporary differences is estimated to be $30.0 billion.***