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THE RELATIONSHIP BETWEEN TAX RISK AND ACQUISITION PRICE PREMIUM

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ABSTRACT

The objective of this study is to evaluate the extent to which financial-statement based proxies for tax risk (i.e. tax reserves) are associated with purchase price in the context of acquisitions. More specifically, we look at the target's tax risk (tax positions that increase the uncertainty of future outcomes) in relation to the acquisition premium paid by the acquirer. Consistent with other studies, we utilize the level of a firm's tax reserves (as reported under FIN 48) as the measure that best captures tax risk. The results display that tax risk has a negative and statistically significant relationship with acquisition premium, suggesting that the bidder pays a lower premium when the target firm has tax reserves on their balance sheet. The result is consistent with the argument that aggressive tax behavior by a target may create a significant liability to the acquirer after the takeover. From these results, we insinuate that the acquirer incorporates tax risk into the merger and acquisition terms.

JEL: M400, M490

KEYWORDS: Tax Risk, Acquisition Price Premium, Proxy for Tax Risk

INTRODUCTION

In this study, the relationship between tax risk and acquisition price premium is empirically examined. As noted by Hanlon & Heitzman (2010), there is an incomplete understanding of how acquirers handle the tax risk of their targets. The field of mergers and acquisitions (M&A) has seen multiple merger waves over the past decade keeping it as one of the top categories for SEC Comment letters (Lussier, 2014). Due to the interdisciplinary nature of M&A, the wealth of research from academics in economics, finance, accounting, management, etc. has made significant contributions to our understanding of the field. These include the effect of industry shocks and regulation, the role of deal competition, information asymmetry and agency problems, and pricing acquisitions (Hanlon and Heitzman, 2010). This paper primarily emphasizes the contributions made by the accounting discipline – more specifically the role tax characteristics play in pricing mergers and acquisitions.

Prior research suggests that tax characteristics affect the structure and pricing of mergers and acquisitions (DeAnglo and Masulis, 1980; Erickson, 1998; Kaplan, 1989; Henning et al, 2000; Chow et al. 2015). While the empirical investigations in this arena are well established, there remains an unexplored issue that is an avenue for interesting research. Little is known how acquirers handle targets with prior uncertain tax positions. Specifically this paper examines the question: does the existing level of tax risk of a target firm affect acquisition price premiums? While it may seem obvious that a level of tax risk will affect acquisition price, there are some reasons why the relation between tax risk and acquisition price premiums is an empirical question. First, to the best of our knowledge, there is no prior empirical evidence that uncertainty regarding a firm's future tax outcomes leads to higher (lower) acquisition price premiums. Second, evidence suggests that similar to investors placing premiums on firms whose managers have financial expertise (Bartov et al. 2002), investors could also place a premium on firms whose managers demonstrate tax

avoidance expertise – leading to a higher price for firms with higher tax risk. The debatable sides of this issue are very interesting and current in light of the fact that corporate tax avoidance behavior is a growing concern for regulators in the United States. The rest of the paper is organized as follows: the first section discusses prior research and develops the hypothesis. Following is a section that explains the research design and discusses the sample selection process. Next, the results are presented and discussion of supplemental analyses is followed by the final section that offers conclusions.

LITERATURE REVIEW

With a new era of business comes a new focus on tax risk management. As Ernst and Young (2011) point out, increased uncertainty combined with globalization and the effects of the global financial crises are posing new financial and reputational risks to companies. Based on a survey conducted by Ernst and Young, 88 percent of large company respondents indicate that the importance of managing tax risk and controversy is heightened and will continue to do so in coming years (Ernst and Young, 2011). In the U.S., acquiring companies assume potential tax liabilities of target companies in certain transactions, therefore creating a significant risk to the acquirer. Professionals have long emphasized the importance of paying particular attention to target firm tax compliance and contingent tax liabilities (Ayers et al. 2003, Frank et al. 2009).

Tax risk and its effects have been a focus of many accounting research studies. There are mixed perspectives when it comes to actually characterizing tax risk. Guenther et al. (2013) attempt to distinguish between the concepts of tax risk, tax avoidance and tax aggressiveness while relating all constructs to overall firm risk. In that study, tax risk is seen as the ability of a firm to sustain its tax positions over time. Following the study made by Guenther et al. (2013), the proxy used to measure tax risk is the standard deviation of annual cash effective tax rates (ETR) measured over a five year period. In a subsequent publication, Hutchens and Rego (2013) analyze the extent to which proxies for aggressive tax avoidance best capture a firm's tax risk. They posit that tax risk is defined as:

“all tax related risks and uncertainties associated with a firm's operating, investing and financing decisions, including uncertainty in the application of tax law to company facts, the risk of audit, including assessments of additional tax, interest, and penalties, and uncertainty in the financial accounting for income taxes” (Hutchens and Rego, 2013).

They utilize discretionary permanent book-tax differences, tax shelter prediction scores, cash ETR and unrecognized tax benefits (UTB) as proxies for aggressive tax avoidance. They argue that these measures capture tax consequences for transactions with great levels of uncertainty with respect to future tax payments. Their study suggests greater tax risk increases uncertainty regarding a firm's future after-tax cash flows and thus should impact a firm's implied cost of equity capital. Hutchens and Rego (2013) provide consistent evidence that the total amount of tax reserves (UTBs), disclosed under Interpretation No. 48 (FIN 48), is positively associated with the implied cost of equity capital, and thus is the best measure given the other proxies of tax risk. The other proxies, discretionary book-tax differences, tax shelter prediction score and cash ETR did not capture tax risk (Hutchens and Rego, 2013).

Lisowsky et al (2013) show evidence that the contingent liability for income taxes, otherwise known as tax reserves, is a superior predictor of tax-shelter activity. Weaving tax research into merger and acquisition (M&A) research provides many interesting research outcomes. In previous works of Henning et al. (2000), investigation is made into the effect of a target's tax status on acquisition structure. Specifically tax status includes: the target's marginal tax rate, the taxes paid by both the acquirer and target firm, as well as the cost of the target's net operating loss (NOL) to the acquirer. No such account was made for tax risk as a factor within this study. Rego and Wilson (2012) examine equity risk incentives as a determinant of tax aggressiveness, and propose that it motivates managers to make risky investment and financing decisions. Rego and Wilson (2012) also vie that aggressive tax avoidance represents risky activity and can create

significant uncertainties to the firm over an extended period of time. Given that an acquisition is a significant investment decision, it can be argued that the existing tax risk of the target firm plays a major factor in determining the price paid by the acquirer as well.

Furthermore, Koester (2011) specifically analyzes whether or not investors view tax reserves as value increasing or value decreasing. This study finds that tax reserves are positively associated with stock price. Although this association is present, it does not necessarily address the question of whether greater tax risk increases the rate of return investors require from their equity investments in a firm (Hutchens and Rego, 2013). However, it does bring to question whether or not the presence of tax risk is captivated in acquisition price. The intersection of tax research and merger and acquisition (M&A) offers many possible interpretations of the effects tax risk will have on acquisition premiums. Mukherjee et al (2004) provide many noteworthy motives of M&A transactions including: synergy, diversification, tax considerations, management incentives, purchase of assets below replacement cost, and breaking value. Much of the literature discussed here focuses on tax characteristics and the effects they have in M&A. Frischmann et al (2008) provide evidence that a firm's initial disclosure of tax reserves relative to permanent uncertain tax positions is positively associated with abnormal stock returns in the 3-day window around the initial disclosure. This ultimately suggests investors view uncertain tax avoidance as value enhancing. However, most tax strategies that are inherently risky and involve greater uncertainty with respect to future outcomes, involve significant costs. Balakrishnan et al (2012) provide evidence that tax aggressiveness reduces corporate transparency. Results consistent with Desai and Dharmapala (2006, 2009) suggest that aggressive tax avoidance obscures financial reporting trickling down to increased agency costs. Furthermore, if aggressive tax avoidance is challenged and disallowed by tax authorities, companies may need to pay back tax, potential fines, and could possibly suffer reputational damage (Chen et al. 2010). In addition, Hasan et al (2014) report that banks and bondholders charge a higher borrowing cost and impose more covenants in contracting with tax aggressive borrowers. In sum, increasing tax aggressiveness, or in this study tax risk, can pose significant costs to a firm.

Brigham and Ehrhardt (2012) sustain the most appropriate rate to value a company is the target's cost of equity. As Hutchens and Rego (2013) suggest, if tax risk influences investors assessments of the distribution of a firm's future after tax cash flows relative to those for the market, then tax risk should be associated with cost of equity capital. They find support that tax risk is positively related to cost of equity capital. Inferring that cost of equity capital is an appropriate valuation measure used in merger and acquisitions, and tax risk has a proven association with cost of equity capital, we posit that tax risk is going to effect the purchase price in the M&A transaction. Desai and Dharmapala (2009), Wilson (2009) and Koester (2011) all provide evidence that tax avoidance is associated with a higher firm valuation only in well-governed companies. Based on these findings and others, one would suspect that if tax avoidance is undertaken primarily for maximizing shareholder value, and seen positively by acquiring firms and shareholders, then there would exist a positive relation between the premium acquirers are willing to pay and the targets existing tax risk. Alternatively, the contributions of Banks and Kinney, 1982; Barth and McNichols, 1994; Cohen et al. 2009 find evidence consistent with other contingent liabilities being negatively valued by investors. Also, the negative reputation effect that is associated with a firm being viewed as a "poor corporate citizen" that is unwilling to pay taxes and "cheat" would lend explanation to a negative association between target tax risk and acquisition premiums paid. The conflicting evidence leads to an interesting research question; one that hopefully with the findings of this study, will contribute to reducing the ambiguity around the effects of target tax risk in mergers and acquisitions.

H1: The existing tax risk of a target company will be associated with the acquisition premium paid by the acquiring company.

DATA AND METHODOLOGY

The sample consists of mergers and acquisitions of publicly listed targets announced during the period of 2007 – 2014 available on the Securities Data Company U.S. Mergers and Acquisitions (SDC) database. Thomson Reuters SDC database provides details of global mergers and acquisitions activity, including individual deal details and terms and conditions. The M&A database content covers over one million deals, including 300,000+ US-target and 700,000+ non-US-target transactions announced since the 1970s. Each acquisition for this study needs to meet the following criteria: (i) both the acquirer and target are public, U.S. companies, (ii) the acquirer owns 100% of stock after the transaction is completed, (iii) neither the acquirer nor target are in Standard Industry Classification (SIC) codes of 67**, 60**, 61**, 62**, and 49**, (iv) the acquisition premium recorded in SDC is positive, and (v) the acquirer and target company have financial statement data available from COMPUSTAT. The SIC codes indicate the real estate investment industry, financial institutions and utilities. The reason for their exclusion is due to the regulations of these industries and the likelihood that will affect tax risk tolerance (Hutchens and Rego, 2013). The final sample consists of 190 acquisitions.

Table 1 provides the variables utilized in this study and their definitions. Based on the plethora of prior accounting research, tax reserves is utilized in this study as the proxy for tax risk. A firm's contingent liability for income taxes, referred to as tax reserves, informs financial statement users of tax positions that have a relatively high level of uncertainty based on tax laws. In 2006, FASB Interpretation No. 48 Accounting for Uncertainty in Income Taxes (FIN 48) was issued to address the diversity in accounting for uncertainty in income taxes observed in practice (Koester, 2011). FIN 48 requires all publicly traded companies to record tax reserves on the balance sheet and also disclose details in the footnotes of the financial statements about the tax reserves. It is required that a firm record any tax reserve that has a fifty percent chance or less of being successfully upheld based on tax laws and regulations (ASC 740-10-10-25-6). The FASB required public companies to adopt the provisions of FIN 48 beginning after December 15, 2006.

Table 1: Variable Definitions

Variable	Definition
PREM	ratio of the final offer price to the target trading price four weeks prior to the deal announcement data.
TAX_RISK _{TAR}	1 for the number of non-zero unrecognized tax benefits on the target firm's balance sheet, 0 otherwise
SIZE _{TAR}	The total value of target company assets
SIZE _{ACQ}	The total value of acquirer company assets
MULTI	1 for more than one bidder, 0 otherwise
TENDER	1 for tender offers, 0 otherwise
SYNERGY	1 for synergistic acquisitions, 0 otherwise

This table defines the variables included in the empirical model.

The dependent variable is acquisition premium. Common among the acquisition literature, acquisition premium is used as the pricing proxy (Beckamn and Haunschild, 2002; Kisgen et al. 2009; Denis and Macias, 2013; Krishnan et al. 2007). Acquisition premium (*PREM*) is defined as the ratio of the final offer price to the target trading price four weeks prior to the deal announcement data. TAX_RISK_{TAR} represents the proxy for tax risk, which is tax reserves, measured by the amount of tax reserves reported on the target firm's balance sheet. Firms receive a 1 if they report tax reserves and 0 otherwise. Other variables are included to control for factors regarding the target firm, acquiring firm, and deal characteristics that prior research has shown to impact acquisition premiums (Reuer et al. 2012; Jarrell and Pouslen 1989; Asquith

et al (1983, 1987); Schwert, 2000, Haunschild, 1994) To control for target and acquirer firm characteristics, firm size (value of total assets) of each the acquirer and target firms is included, denoted by $SIZE_{ACQ}$ and $SIZE_{TAR}$ respectively. Controls for deal characteristics include the following variables: MULTI, SYNERGY, and TENDER. Jarrell and Poulsen (1989) and Haunschild (1994) suggest that acquisition premiums are affected by competitive bids. The variable, MULTI, is used to control for the presence of other bidders. It equals 1 if there is more than one bidder and 0 otherwise. Data regarding the number of bidders were available from the SDC database. Slusky and Caves (1991) suggest that an acquirer will pay a higher premium for a target when there is ‘good fit’ between the companies, i.e. the acquisition is synergistic. To control for synergies between the acquirer and target, we follow the study by Rumelt (1974) that considers synergistic activities when two firms serve common customers, use common distribution channels, or use related technologies of production. A classification scheme similar to other studies (e.g. Haunschild, 1994; Ravenscraft and Scherer, 1987) is used in which an acquisition was coded as related (denoted by a ‘1’) when the two-digit Standard Industry Classification (SIC) code of the target and acquiring firm matched. Otherwise the synergy was coded ‘0’. Another variable indicates whether the acquisition was made with a tender offer (TENDER) with 1 for a tender offer and 0 otherwise. Consistent with other studies, acquisition premiums paid by bidders may be higher when there is an active M&A market. The intensity of M&A activities is captured by using year controls for the announcement of the acquisition. The following regression model incorporates the above variables to examine whether tax risk is accounted for in the acquisition price premium (H1):

$$PREM = \beta_0 + \beta_1 TAX_RISK_{TAR} + \beta_2 SIZE_{TAR} + \beta_3 SIZE_{ACQ} + \beta_4 TENDER + \beta_5 MULTI + \beta_6 SYNERGY + \varepsilon. \tag{1}$$

RESULTS AND DISCUSSION

Table 2 displays the descriptive statistics for the sample. The average premium for the sample is \$51.05. The mean size of the target firms is approximately \$1.376 million, and the mean size for the acquiring firms is \$22.678 million. Table 3 presents the Pearson (Spearman) correlation coefficients for each of the variables. Pearson coefficients are reported above the line, while Spearman coefficients are reported below the line. Bold coefficients represent significance at the .001 and .05 significance levels. Italicized coefficients represent significance at the .10 level. Preliminary statistics provided in the correlation table suggests that tax risk indeed does play a factor in the acquisition premium.

Table 2: Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
PREM	190	51.05	47.08	0.22	432.21
TAX_RISK_TAR	190	0.82	0.39	0.00	1.00
SIZE_TAR	190	1,376.49	2,785.72	6.70	17,590.00
SIZE_ACQ	190	22,677.56	57,616.06	13.40	665,614.00
MULTI	190	0.05	0.21	0.00	1.00
TENDER	190	0.29	0.45	0.00	1.00
SYNERGY	190	0.66	0.48	0.00	1.00

*This table presents descriptive statistics for each variable included in the empirical model. TAX_RISK_TAR is equal to ‘1’ if there are tax reserves reported, and zero otherwise. SIZE_TAR and SIZE_ACQ are both in millions of dollars. The empirical model is as follows:
 $PREM = \beta_0 + \beta_1 TAX_RISK_TAR + \beta_2 SIZE_TAR + \beta_3 SIZE_ACQ + \beta_4 TENDER + \beta_5 MULTI + \beta_6 SYNERGY + \varepsilon.$*

From Table 3, we observe a significant negative correlation between tax risk and premium. This would suggest that the premium is lower for target firms that report tax reserves on their financial statements. We can also see that PREM (premium) is correlated with the size of the acquirer and the exhibition of multiple bidders.

Table 3: Pearson (Spearman) Correlation Coefficients, N = 190

	PREM	TAX_RISK _{TAR}	SIZE _{TAR}	SIZE _{ACQ}	MULTI	TENDER	SYNERGY
PREM		-0.14578	-0.07235	0.12922	0.15080	0.06692	0.06065
TAX_RISK _{TAR}	-0.11152		0.19755	0.02729	-0.02187	-0.02600	-0.02787
SIZE _{TAR}	-0.19124	0.39272		0.06559	-0.02504	-0.13499	0.04749
SIZE _{ACQ}	0.17614	0.12662	0.36373		0.02454	0.05963	-0.12333
MULTI	0.15382	-0.02187	-0.03185	0.07092		0.18546	0.10857
TENDER	0.12579	-0.02600	-0.05977	0.20683	0.18546		0.14227
SYNERGY	0.00759	-0.02787	0.11641	-0.07868	0.10857	0.14227	

Pearson (Spearman) correlation coefficients are reported above (below) the line. Bold represents significance at the .001 and .05 levels. Italicized represents significance at the .10 level.

Table 4 presents the results of whether the target's existing level of tax risk, as measured by whether or not the target firm has reported non-zero tax reserves on the balance sheet, is associated with the acquisition premium that is paid by the acquirer of that company. Ordinary least squares (OLS) regression is the technique utilized. The variance inflation factor (VIF) is included in Table 4. Values for each of the variables is below the threshold where multicollinearity becomes a concern.

Table 4: Regression Analysis Results of Acquisition Premium and Tax Risk

Parameter	Predicted Sign	Estimate	T Value	Variance Inflation Factor
Intercept		43.8416	3.46***	
TAX_RISK _{TAR}	+/-	-18.4603	-2.09**	1.04248
SIZE _{ACQ}	?	0.0001	1.93**	1.07213
SIZE _{TAR}	?	-0.0005	-0.43	1.02989
MULTI	+	32.3471	1.98**	1.04403
TENDER	+	2.5750	0.34	1.08096
SYNERGY	+	7.3343	1.00	1.05505
Year dummies		YES		
N		190		
R ²		0.0999		
Adjusted R ²		0.0443		

***, **, and * indicate significance at the .001, .05, and .10 levels respectively. The table presents the results of OLS regression of the following empirical model: $PREM = \beta_0 + \beta_1 TAX_RISK_TAR + \beta_2 SIZE_TAR + \beta_3 SIZE_ACQ + \beta_4 TENDER + \beta_5 MULTI + \beta_6 SYNERGY + \epsilon$. TAX_RISK_TAR is equal to '1' if there are tax reserves reported, and zero otherwise. SIZE_TAR and SIZE_ACQ are both in millions of dollars and represent the value of total assets of the target and acquirer, respectively. MULTI equals '1' if there are multiple bidders, zero otherwise. TENDER equals '1' if there is a tender offer made, zero otherwise. SYNERGY equals '1' if both the acquirer and target company have the same 2 digit SIC code.

As Table 4 shows, tax risk has a negative and statistically significant coefficient, suggesting that bidders pay a lower premium when the target firm exhibits tax risk by including tax reserves on their balance sheet. The result is consistent with the argument that aggressive tax avoidance by a target may create a significant liability to the acquirer after consummation of the takeover. From these results, I insinuate then that the acquirer incorporates tax risk into the price of the target. Results on the control variables are somewhat consistent with prior studies even though the level of significance varies across the prior studies and our own results. The results suggest a significantly positive relationship between the size of the acquirer, the existence of multiple bidders, and whether the transaction is a tender offer and acquisition premium (Schwert, 2000; Barger et al. 2008). Although insignificant, a positive coefficient suggests that the bidder also pays a higher premium when the acquisition is synergistic (Haunschild, 1994).

CONCLUSIONS AND LIMITATIONS

M&A activity is accelerating and as businesses grow in complexity and geographic reach, the challenges and risks related to tax increase significantly. There are financial as well as reputational risks that can be costly if not managed proactively. The purpose of this study is to evaluate the extent to which financial-statement based proxies for tax risk (i.e. tax reserves) impact the purchase price in the context of acquisitions. More specifically, we look at the target's tax risk (tax positions that increase the uncertainty of future outcomes) in relation to the acquisition premium paid by the acquirer. Employing regression analysis of 190 acquisitions in years 2007 – 2014, our results show that tax risk is indeed accounted for in acquisitions. In fact, acquisition premiums are lower when tax risk is present for a target firm. In this study, tax risk is captured by whether or not the target firm reports tax reserves in their financial statements. The result aligns with the argument that aggressive tax avoidance, insinuated by the presence of tax reserves by a target firm, may create a significant liability to the acquirer after consummation of the takeover. Overall, the evidence is consistent with the argument that corporate tax risk may reflect agency problems and therefore become a source of a contingent liability for the acquiring firm.

Several robustness checks and sensitivity tests could be utilized to augment the results of this study. For example, alternative measures could be used to measure acquisition premium and tax risk. Schwert (2000) computes the premium as the target cumulative abnormal returns (CARs) 63 trading days before the date of the acquisition announcement to 126 days after the date of the acquisition announcement. While the disclosures required under FIN 48 should give a somewhat better view of a taxpayer's uncertain tax positions, the disclosures still do not have the specificity that would allow a perfect view of the issues and amounts at risk. Therefore, alternate measures from previously cited studies may supplement the proxy used in this study to capture tax risk.

A recent study by Raman et al. (2013) finds that financial reporting quality possibly impacts acquisition premiums. This could be included as another control variable in the current study. Another potential factor that is related to takeover premium is target net operating losses (NOLs). Profitable acquirers may pay a higher premium for companies with NOLs because of the potential tax savings. It also possible that tax risk could be correlated to a target company's overall risk-taking policies, which could be the explanation for the lower premium that it receives. These alternative adjustments to the current study could have the potential to paint a different picture regarding tax risk and acquisition premiums. This paper adds to the literature stream of understanding how target characteristics affect M&A transactions. This study also extends the corporate tax literature by demonstrating a valuation effect of tax risk from the perspective of a knowledgeable investor. The fact that acquisition premium is a measure of target shareholder gain; the results here also speak to a cost of tax risk to shareholders. They receive a lower premium in takeover transactions when tax risk is present.

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CAPITAL MARKET CONSEQUENCES OF EXPECTATIONS MANAGEMENT IN THE POST- REGULATION FAIR DISCLOSURE PERIOD

Sherry Fang Li, Rider University

ABSTRACT

This paper investigates the capital market consequences of expectations management in the post-Regulation Fair Disclosure period. Results show that investors “punish” firms that deliberately issue pessimistic public guidance to dampen analysts’ expectations to a beatable level in the post-Regulation Fair Disclosure Era. I find that on average, the negative stock price effects caused by management’s pessimistic guidance dominate the positive stock price effects associated with the positive earnings surprises. Furthermore, both the short-term stock return over the combined guidance plus earnings announcement window and the long-term total period return are more negative for guidance firms than for firms that do not guide and thus miss financial analysts’ expectations.

JEL: M41, M48

KEYWORDS: Expectations Management, Earnings Guidance, Managerial Guidance, Regulation Fair Disclosure, Analysts’ Expectations, Capital Market

INTRODUCTION

Expectations management refers to the phenomenon that management finds ways to influence financial analysts' expectations to avoid negative earnings surprises at the earnings announcement day. There is ample anecdotal evidence indicating that the expectations management game has been played, and successfully played for many years. For example, an article in the Chicago Sun-Times states, “Essentially, chief executives and chief financial officers have learned that the secret to spinning earnings is to under-promise and over-deliver. The first step is to provide conservative earnings guidance to the market, causing analysts to lower their earnings expectations. This is done through press releases, interviews with financial media and meetings with analysts in groups. Next, the company reports earnings that are better than analysts' lowered earnings estimates.” (Zacks, 2003). This paper is one of a series of studies dedicated to exploring how market participants (e.g., financial analysts, investors, regulators) react to expectations management in the post Regulation Fair Disclosure (FD) period. The primary objective of Regulation FD, which was adopted by the Securities and Exchange Commission (SEC) in October 2000, is to address selective disclosure of information to certain market participants. Prior to Regulation FD, management could provide private earnings guidance to financial analysts to influence their forecasts, but after the passage of this regulation, they are not allowed to do so. If management intends to disclose certain nonpublic information to certain information users, they must make public disclosure of that information.

Regulation FD has greatly changed the way that the expectations management game is played. In the new regulatory environment, management has to give up private communications with analysts and switch to providing *public* guidance if they still intend to manage analysts’ expectations, making it possible to *directly* capture expectations management activities and measure market participants’ reactions to such activities. Several studies have reported positive stock price effects when firms meet or beat analysts' forecasts at the

date of the official earnings announcement, even if it is achieved through expectations management (Bartov et al., 2002, Skinner and Sloan, 2002). However, issuing pessimistic guidance prior to the earnings announcement in order to generate a positive earnings surprise may result in a drop in stock price at the guidance date. Whether the positive announcement period return can offset the negative price effect related to the earnings guidance activity is still an empirical question. There are ample articles on the popular press reporting that firms' stock prices drop sharply after they issued disclosures indicating their earnings would fall short of analysts' expectations. The results of my stock return tests show that the average three-day cumulative abnormal return around the pessimistic guidance release date is -10.2 percent, while the average three-day cumulative abnormal return around the earnings announcement is only 1.7 percent. It appears that the positive stock return associated with the positive earnings surprise is not large enough to offset the negative stock return as a result of pessimistic guidance. Furthermore, using a control sample of matched firms, I find that both the short-term stock return over the combined guidance plus earnings announcement window and the long-term total period return are more *negative* for firms that beat analysts' forecasts through managerial guidance than for firms that do not engage in expectations management and therefore miss the analysts' forecasts. Overall, my results indicate that firms are "punished" by the investors for issuing pessimistic guidance to achieve positive earnings surprises.

This paper contributes to the literature by addressing the *costs*, in terms of the stock price effects, of expectations management in the post-Regulation FD period. Several studies have documented the benefits of taking actions to meet or beat analysts' forecasts (Bartov et al., 2002, Skinner and Sloan, 2002). However, little research has been done to measure the *costs* of expectations management. Examining the costs of expectations management is crucial to understanding the net rewards, and furthermore, the motivations for managers to dampen analysts' forecasts. My results suggest that it does not pay (in terms of stock performance) for managers to alter analysts' expectations through pessimistic public guidance. It shows that on average, the guidance firms' stock performance worsens in both short and long run. This finding appears to be inconsistent with prior research which usually suggests that the major reason for managers to achieve positive earnings surprises is to maintain or increase the firms' stock prices (e.g. Graham et al., 2005, Brown and Caylor, 2005). The remainder of the paper is organized as follows: In the next section, I provide background information and review the related literature. I then present the sample selection procedures and the data sources. In the results section I document the capital market consequences of expectations management. In the last section, I provide concluding comments and discuss possible future research questions.

LITERATURE REVIEW AND BACKGROUND

In recent years, a large portion of accounting research (e.g. DeGeorge et al. 1999, Richardson et al. 2004, Brown 2001, Matsumoto 2002, McVay et al. 2006, Bhojraj et al. 2009, Doylea et al. 2013, Kasznik, R. and M. McNichols 2002) has been dedicated to documenting and understanding the phenomenon that managers take actions to meet or beat financial analysts' expectations (MBE, hereafter). For example, DeGeorge et al. (1999) find unusually low frequencies of negative forecast errors and unusually high frequencies of positive forecast errors in the cross-sectional empirical distribution of analysts' forecast errors. Richardson et al. (2004) and Brown (2001) document a disproportional number of cases where earnings per share are exactly equal to or slightly above analysts' forecasts based on I/B/E/S data. Matsumoto (2002) finds similar results using the Zack's earnings surprise file.

Both anecdotal and academic evidence has shown that expectations management is an effective mechanism to achieve MBE (e.g. Matsumoto 2002, Bartov et al. 2002, Cotter et al. 2006). More recent research that specifically focuses on the post-Regulation FD period finds that expectations management game is still played, although decreasing, and management has changed to issuing pessimistic *public* guidance to dampen analysts' forecasts (Li et al., 2014, Li, 2019). Using a uniquely hand-collected dataset, Li et al. (2014) explore how *analysts* react to expectations management and find that they responded to earnings guidance activities in the way that management desired. They revised their forecasts downward immediately to a beatable level

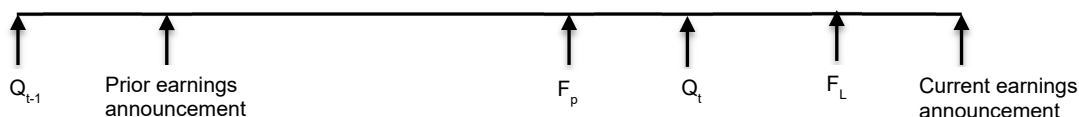
after the issuance of a pessimistic public guidance. This study extends Li (2019) and Li et al. (2014) by investigating how *investors* react to expectations management activities in the post-Regulation FD period. Prior studies suggest that an important incentive to MBE is to improve stock performance. It is no secret that investors penalize firms for failing to MBE. Stock market reactions to negative earnings surprises tend to be large and asymmetric, suggesting a high cost to missing analysts' forecasts (Skinner and Sloan, 2002).

It is also no secret that investors reward firms for MBE. For example, Bartov et al. (2002) report that MBE firms enjoy a higher return over the quarter than non-MBE firms with similar quarterly earnings forecast errors. Further, such a premium to MBE, although somewhat smaller, exists even when MBE is likely to have been achieved through expectations management. However, whether the *net* reward to MBE through expectations management strategy is positive is questionable, because management's earnings guidance activities likely result in negative price effects around the release of the guidance, possibly leaving the total return for the period negative or unchanged. Kasznik and Lev (1995) find that firms do not improve their stock price performance by issuing warnings before large negative earnings surprises. However, they did not address whether the stock price performance would have been improved by a firm's decision to issue pessimistic guidance that successfully switches a negative earnings surprise to a positive earnings surprise. This paper addresses this issue using a uniquely hand-collected dataset described in the next section.

Sample Selection and Data Source

I first select a sample of firms that are *more likely* to have beaten analysts' expectations through expectations guidance game. Firm-quarters that meet the following criteria are selected: (1) The last available I/B/E/S analyst median consensus forecast (denoted as F_L) before the actual earnings announcement is pessimistic (relative to the actual earnings); (2) The last available I/B/E/S analysts' median consensus forecast (denoted as F_P) prior to F_L is optimistic (relative to the actual earnings). I choose consensus forecast instead of individual forecast (e.g. Bartov et al., 2002) as the proxy for analysts' earnings expectations because managers are more likely concerned with whether the actual earnings can meet or beat the consensus forecast (as reported in company press releases), rather than any individual forecast. Furthermore, stale forecasts that have not been updated since the previous quarter's earnings announcement are excluded from the consensus forecast computation. Figure 1 presents the timeline of events. Since I/B/E/S publishes consensus forecasts on the third Thursday every month, F_L is about 30 days after F_P . The median number of days between F_L and the subsequent earnings announcement is 11 days. This initial sample includes firm-quarters where analysts revised their initially optimistic forecast (F_P) down and turned a negative forecast error (measured as the actual earnings minus F_P) into a positive earnings surprise (measured as the actual earnings minus F_L) at the earnings announcement day.

Figure 1: Timeline of Events



F_L : the last available I/B/E/S analysts' consensus forecast before the actual earnings announcement.

F_P : the last available analysts' consensus forecast before F_L .

Q_{t-1} : the previous quarter end.

Q_t : the current quarter end.

Next I hand-collect *all* the public disclosures (both quantitative and qualitative) with implications for quarterly earnings issued between F_P and F_L by the sample firm-quarters. I focus on these disclosures instead of disclosures made at the beginning of the quarter because the latter are more likely to be issued to purely correct analysts' optimism instead of managing their expectations to a beatable level, as suggested by many previous studies (e.g. Tse and Tucker 2007, Li et al. 2014, Li 2019). I then classify these disclosures as

pessimistic/neutral/optimistic guidance if they indicate that earnings will be worse/the same/better. The public disclosures were obtained from the Lexis/Nexis News Wires File, the StreetEvents database, company website and other sources. I exclude firms in regulated industries from the study, as they are likely to have different incentives to meet or beat analysts' forecasts than those in non-regulated industries (Matsumoto, 2002). Specifically, I exclude financial institutions (SIC codes 6000-6999), utilities (SIC codes 4800-4999), and other quasi-regulated industries (SIC codes 4000-4499, and 8000 and higher). The analyst forecast-related data are from the 2005 I/B/E/S Summary History File, stock return-related data are from CRSP and other accounting data are collected from 2005 Compustat Research Insight.

The sample period is from January 2001 to December 2004, after Regulation FD was officially adopted. The initial sample is composed of 955 firms with 1,073 firm-quarter observations with required data available. Table 1 shows the types of public guidance issued by the initial sample. 58.4% of the sample (627 firm-quarters) issued pessimistic guidance, 0.5% made neutral guidance (five firm-quarters), 0.7% made optimistic guidance (seven firm-quarters), and 40.4% (434 firm-quarters) made no disclosures at all.

Table 1: Types of Public Guidance Issued by the Initial Sample Firm-Quarters¹

	N	Percent
Pessimistic guidance	627	58.4
Neutral guidance	5	0.5
Optimistic guidance	7	0.7
No disclosures	434	40.4
Total	1073	100

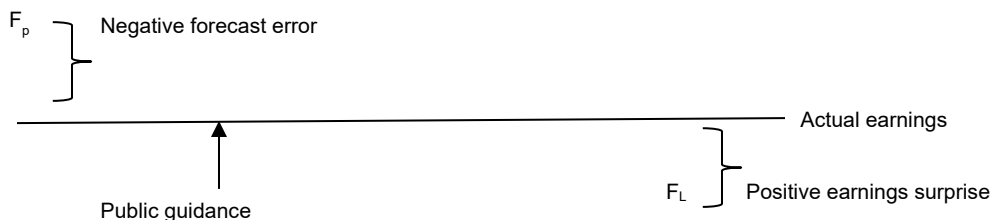
¹ The initial sample is composed of 1073 firm-quarters where analysts revised their initially optimistic forecasts downward to turn a negative forecast error into a positive earnings surprise.

I denote the 627 pessimistic guidance cases as the *Guidance-Beat* sample, which represents firm-quarters that issued pessimistic public disclosures and successfully guided analysts' forecasts down to avoid a disappointment at the earnings release day. I then select a control sample, denoted as the *Nonguidance-Miss* sample, according to the following criteria: (1) The initial analyst consensus forecast (F_P) is optimistic (relative to the actual earnings); (2) The last available analyst consensus forecast before the actual earnings announcement (F_L) is also optimistic (relative to the actual earnings); (3) There are no public managerial disclosures with implications for earnings between F_P and F_L .

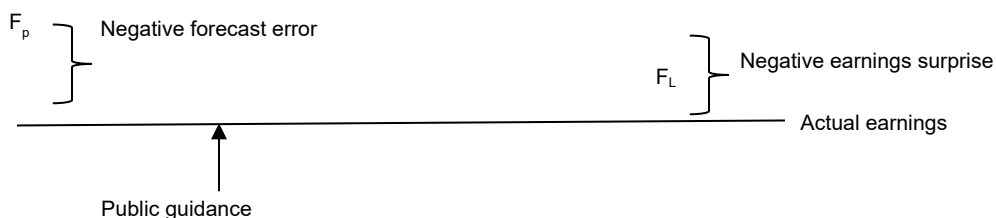
Figure 2 shows the criteria. The first two criteria select firm-quarters that are faced with the same incentives as the *Guidance-Beat* firm-quarters to manage expectations (F_P is higher than the actual earnings), but fail to beat analysts' expectations at the earnings announcement date (F_L is higher than the actual earnings as well). The third criterion ensures that the *Nonguidance-Miss* firm-quarters were not involved in public expectations guidance activities. Thus the *Nonguidance-Miss* sample represents firm-quarters that did not guide expectations and thus missed the analysts' forecasts. Figure 2 presents the sample selection criteria for the *Guidance-Beat* sample and the *Nonguidance-Miss* sample.

Figure 2: Sample Selection Criteria: Guidance-Beat Sample vs. Nonguidance-Miss Sample

Guidance-Beat Sample: firm-quarters that beat analysts' forecasts through expectations management



Nonguidance-Miss Sample: firm-quarters that do not manage expectations and fail to beat analysts' forecasts



F_L : the last available analyst consensus earnings forecast before the actual earnings announcement.

F_p : the last available analyst consensus earnings forecast prior to F_L .

Forecast error is measured as the actual earnings minus F_p .

Earnings surprise is measured as the actual earnings minus F_L .

Each *Guidance-Beat* firm-quarter is then matched with a *Nonguidance-Miss* firm-quarter by two criteria: industry membership (2-digit SIC code) and calendar quarter. I further excluded seven firm-quarters that do not have stock return data in CRSP from the original *Guidance-Beat* sample (627 firm-quarters). With the matched-sample design, both *Guidance-Beat* and *Nonguidance-Miss* final samples contain 620 firm-quarters.

RESULTS

I perform two sets of tests to explore the investors' reactions to expectations management in the post-Regulation FD period. First, if it does pay (in terms of stock performance) for a firm to dampen analysts' expectations through pessimistic public guidance to achieve a positive earnings surprise, the positive stock price effects around the actual earnings announcement should be large enough to offset any negative stock price effects resulting from management's pessimistic guidance. Table 2 Panel A presents the distributions of the three-day (-1,+1) cumulative market-adjusted returns (the firm's raw return minus the corresponding CRSP value-weighted market return) around the earnings announcement date and the guidance release date for all the *Guidance-Beat* sample firm-quarters. The average three-day cumulative market-adjusted return around the earnings announcement (CAR_{EA}) is 1.7 percent ($p < .0001$). However, the average three-day cumulative market-adjusted return around the pessimistic guidance release date ($CAR_{Guidance}$) is -10.2 percent ($p < .0001$), indicating that management's pessimistic guidance results in a much stronger negative stock price effect. The average combined market-adjusted return over the three-day guidance window plus the subsequent three-day earnings announcement window ($CAR_{Combined}$) is -8.5 percent ($p < .0001$), suggesting that the net reward to dampening analyst forecast through pessimistic guidance is negative. I also computed alternative measures of returns over the analysis window: the cumulative raw return over the period, the cumulative CRSP equal-weighted market-adjusted return over the period, and the period's size-adjusted return. The results presented in this section are not sensitive to different return measures.

For the *Guidance-Beat* firm-quarters that issued multiple guidance during the interval examined (less than 3%), I measured the three-day return around each of the guidance events to capture the investors' reactions to all the guidance activities. I also performed three robustness tests on these multiple guidance firm-quarters (results unreported): (1) exclude the firm-quarters with multiple disclosures from the sample; (2) only consider the market reactions to the "primary disclosure" and ignore other disclosures, as in Kasznik and Lev (1995) where the primary disclosure is the most quantitative, earnings-related disclosure; (3) only consider the market reactions to the most current disclosure. The three robustness tests lead to essentially the same inferences as reported in this section.

Table 2 Panel A shows that firms bear high costs (negative stock price effects caused by management's pessimistic guidance) for managing expectations to avoid negative earnings surprises. However, such costs may still be smaller than the penalty of missing analysts' forecasts. Plenty of anecdotal and academic evidence indicates that investors penalize firms for failing to meet or beat analysts' projections (e.g., Skinner and Sloan 2002, Bartov et al. 2002). Therefore, in the second set of tests, I apply a matched-sample design to investigate the differential stock returns to firms that beat analysts' estimates through pessimistic guidance (the *Guidance-Beat* firms) and firms that do not guide expectations and thus miss the analysts' forecasts (the *Nonguidance-Miss* firms).

Table 2: Three-Day Cumulative Market-Adjusted Returns Around the Earnings Announcement Date and the Guidance Release Date

Panel A: Guidance-Beat Sample					
Variable	Mean	S.D.	1 st Quartile	Median	3 rd Quartile
<i>CAR_EA</i>	0.017*	0.093	-0.027	0.011	0.058
<i>CAR_Guidance</i>	-0.102*	0.136	-0.167	-0.073	-0.015
<i>CAR_Combined</i>	-0.085*	0.165	-0.171	-0.067	0.016
Panel B: Nonguidance-Miss Sample					
Variable	Mean	S.D.	1 st Quartile	Median	3 rd Quartile
<i>CAR_EA</i>	-0.031*	0.118	-0.081	-0.020	0.020
<i>CAR_Average</i>	-0.005	0.023	-0.014	-0.002	0.007
<i>CAR_Combined</i>	-0.035*	0.119	-0.082	-0.024	0.021

CAR_EA is the three-day (-1,+1) cumulative market-adjusted return (raw return minus the corresponding CRSP value-weighted market return) around the earnings announcement date; *CAR_Guidance* is the three-day (-1,+1) cumulative market-adjusted return around the pessimistic guidance release date; *CAR_Average* is measured as the three-day average cumulative market-adjusted return between F_P and F_L for Nonguidance-Miss firm-quarters; For Guidance-Beat Sample, *CAR_Combined* is the combined cumulative market-adjusted return over the three-day guidance release window plus the three-day earnings announcement window. For Nonguidance-Miss Sample, *CAR_Combined* is the three-day average cumulative market-adjusted return between F_P and F_L plus the three-day cumulative market-adjusted return around the subsequent earnings announcement. * significant at the .01 level.

I perform the following regression to examine whether investors react differently to *Guidance-Beat* firm-quarters and *Nonguidance-Miss* firm-quarters:

$$CAR = \lambda_0 + \lambda_1 Guide_{it} + \lambda_2 ForeError_{it} + \lambda_3 Size_{it} + \lambda_4 GrowthProspect_{it} + \lambda_5 Day_{it} + \varepsilon_{it} \quad (1)$$

where *CAR* is the cumulative market-adjusted return and is measured over two windows:

(1) *The combined guidance plus earnings announcement window (denoted as CAR_Combined)*: for *Guidance-Beat* firm-quarters, *CAR* is measured as the three-day return around the release of the pessimistic guidance, plus the three-day return around the following official earnings announcement. *Nonguidance-Miss* firm-quarters do not have a guidance event. In order to compare an equivalent six-day return window, I add three-day average return between F_P and F_L to the three-day return around the subsequent earnings announcement for the *Nonguidance-Miss* firm-quarters.

(2) *The long window (denoted as CAR_LongWindow)*: spanning from the last trading day before the date of F_P through the second trading day after the actual earnings announcement.

Guide is a dummy variable, equal to 1 for *Guidance-Beat* firm-quarters and equal to 0 for *Nonguidance-Miss* firm-quarters. *ForeError* refers to the forecast error, measured as the actual earnings minus the initial analyst consensus forecast F_P , and deflated by the price at the end of the same quarter in the prior year. *ForeError* is included to control for the total earnings news. Firm size (*Size*) is included as a proxy for risk factors that may affect stock return. In addition, a firm's growth prospects (*Growth Prospect*, measured as firms' long-term growth forecasts made at the F_P date by I/B/E/S) is included to control for the well-established phenomenon that the realized returns of growth stocks have been lower than other stocks (Skinner and Sloan, 2002). As a robustness test, I also used the book-to-market ratio as a proxy for future growth expectations as in Koh et al. (2008). The regression results reported later are not sensitive to different growth measures. In the long-window regression specification, firm-quarters have different return interval lengths. Therefore, when *CAR* is measured over the long window, I include the variable *Day* to control for the number of days included in the cumulative market-adjusted return computation.

Table 2 Panel B reports some descriptive information on the *Nonguidance-Miss* sample. Compared to the average three-day return around the earnings announcement for the *Guidance-Beat* sample in Panel A (mean *CAR_EA* = 1.7 percent), the average three-day return over the same window for the *Nonguidance-Miss* sample is asymmetrically large (mean *CAR_EA* = -3.1 percent). This confirms the well-documented large asymmetric negative market reactions to negative earnings surprises. The mean three-day average return (*CAR_Average*) is not significantly different from 0, while the average combined return over the six-day window (*CAR_Combined*) is significantly negative ($p < .0001$) for the *Nonguidance-Miss* sample.

Table 3: Attributes of the Guidance-Beat Sample and the Nonguidance-Miss Sample¹

Variable ²	Guidance-Beat Sample (N=620)			Nonguidance-Miss Sample (N=620)			Test of Difference of Means ³	Test of Difference of Medians ⁴
	Mean	S.D.	Median	Mean	S.D.	Median	p-value	p-value
<i>MV</i>	2653.5	10918.0	560.2	3396.2	15620.0	439.3	0.361	0.072
<i>Coverage</i>	8.000	6.136	6.000	8.000	5.423	5.000	0.281	0.056
<i>Growth Prospect</i>	19.055	10.923	15.000	21.392	13.659	17.500	0.002***	0.016**
<i>Loss</i>	0.197	0.398	0.000	0.309	0.463	0.000	<0.0001***	<0.0001***
<i>HighTech</i>	0.336	0.473	0.000	0.335	0.471	0.000	0.831	0.831
<i>Dispersion</i>	0.263	0.556	0.100	0.244	0.622	0.095	0.599	0.172
<i>Optimism</i>	1.151	2.167	0.444	0.796	1.883	0.286	0.004***	<0.0001***
<i>Salesgrowth</i>	-0.056	0.249	-0.058	-0.041	0.844	-0.011	0.179	0.201
<i>ROA</i>	-0.015	0.077	0.002	-0.021	0.087	0.002	0.215	0.501
<i>ROE</i>	-0.018	0.157	0.004	-0.022	0.313	0.004	0.792	0.318
<i>CAR_Combined</i>	-0.086	0.165	-0.068	-0.035	0.119	-0.024	<0.0001***	<0.0001***
<i>CAR_LongWindow</i>	-0.112	0.226	-0.089	-0.096	0.256	-0.076	0.280	0.251

¹Guidance-Beat sample includes 620 firm-quarters that beat the analysts' forecasts through management's public guidance. Nonguidance-Miss sample includes 620 firm-quarters that are not involved in public expectations management activities, and thus miss the analysts' forecasts.

²*MV* is the market value of equity; *Coverage* is the number of analyst forecasts for a firm-quarter at the F_P date; *Growth Prospect* is measured as firms' long-term growth forecasts made at the F_P date by I/B/E/S; *Loss* is a dummy variable, =1 if analyst initial consensus forecast F_P is a loss, =0 otherwise; *HighTech* is a dummy variable, which equals to 1 if the sample firm belongs to: Drugs (SIC code 2833-2836), Programming (SIC code 7371-7379), Computers (SIC code 3570-3577), Electrics (SIC code 3600-3674); and 0 otherwise; *Dispersion* is the standard deviation of the initial analyst consensus forecast F_P , deflated by the absolute value of actual earnings; *Optimism* is measured as the initial analyst consensus forecast F_P minus the actual earnings, deflated by the absolute value of actual earnings; *Salesgrowth* is the realized growth in sales revenue; *ROA* is the return on assets, measured as the net income divided by the average total assets; *ROE* is the return on stockholders' equity, measured as the net income divided by the average book value of equity. For Guidance-Beat Sample, *CAR_Combined* is the combined cumulative market-adjusted return over the three-day guidance release window plus the three-day earnings announcement window. For Nonguidance-Miss Sample, *CAR_Combined* is the three-day average cumulative market-adjusted return between F_P and F_L plus the three-day cumulative market-adjusted return around the subsequent earnings announcement; *CAR_LongWindow* is the combined cumulative market-adjusted return over the period spanning from the last trading day before the date of F_P through the second trading day after the actual earnings announcement.

³T-test is performed to assess whether the group means are significantly different.

⁴Wilcoxon z-test is performed to assess whether the group medians are significantly different.

Table 3 presents more descriptive statistics. The *Guidance-Beat* sample and the *Nonguidance-Miss* sample are not significantly different in terms of market value of equity (*MV*), analyst coverage (*Coverage*), percentage of high-tech firms (*HighTech*), analyst forecast dispersion (*Dispersion*) and profitability (*Salegrowth*, *ROA*, *ROE*). The *Nonguidance-Miss* firm-quarters tend to have higher growth prospects (*Growth Prospect*, p -value=0.002 for difference in means; p =0.016 for difference in medians), but they also have a higher percentage of predicted loss (*Loss*, p -value<.0001 for difference in means; p =0.000 for difference in medians). The *Guidance-Beat* firm-quarters appear to have a higher level of analyst optimism (*Optimism*, measured as the initial analyst consensus forecast F_p minus the actual earnings, deflated by the absolute value of actual earnings). The difference in sample means (medians) is significant with a p -value of 0.004 (p <.0001). Further, the cumulative market-adjusted abnormal return measured over the combined six-day window is more negative for the *Guidance-Beat* firm-quarters (*CAR_Combined*, p -value<.0001 for both means and medians). The long window return (*CAR_LongWindow*) does not appear to be significantly different across samples.

Table 4 shows the regression results. *Guide* is the primary variable of interest. λ_1 captures the differential returns to *Guidance-Beat* firm-quarters and *Nonguidance-Miss* firm-quarters. If the costs of providing pessimistic managerial guidance are smaller than the penalty to missing analysts' forecasts, and firms can eventually benefit from the expectations management game, λ_1 should be significantly positive.

Table 4: Investors' Reactions to Expectations Management

	Combined Window		Long Window	
	Coefficient Estimate	p-value	Coefficient Estimate	p-value
Intercept	-0.023	0.321	-0.010	0.812
Guide	-0.056	<0.0001***	-0.033	0.026**
ForeError	0.017	0.387	0.029	0.358
Size	0.004	0.172	0.008	0.089
Growth Prospect	-0.002	<0.0001***	-0.003	<0.0001*
Day			-0.002	0.019**
R ²	5.16%		3.40%	
Adj. R ²	5.10%		3.38%	

CAR is the cumulative market-adjusted return measured over two windows. The combined window includes three trading days around the release of the guidance, plus three trading days around the following earnings announcement. The long window spans from the last trading day before the date of F_p through the second trading day after the actual earnings announcement. *Guide* is a dummy variable, which equals 1 for *Guidance-Beat* firm-quarters; 0 for *Nonguidance-Miss* firm-quarters. *ForeError* is the forecast error, measured as the actual earnings minus the initial analyst consensus forecast F_p , and deflated by the price at the end of the same quarter in the prior year. *Size* is the log of the market value of equity; *Growth Prospect* is measured as firms' long-term growth forecasts made at the F_p date by $1/B/E/S$; *Day* is the number of days included in the long window cumulative market-adjusted return computation.

When *CAR* is measured over the *combined guidance plus earnings announcement window*, λ_1 is -0.056 (p <.0001), suggesting that the combined investors' reactions to management's pessimistic guidance and the subsequent earnings announcement are more *negative* for *Guidance-Beat* firm-quarters than for *Nonguidance-Miss* firm-quarters. In the *long window* regression, λ_1 is -0.033, also significantly different from 0 (p =0.026), suggesting that over the long run, stock returns for *Guidance-Beat* firm-quarters are significantly lower than that of *Nonguidance-Miss* firm-quarters. Overall, the regression results indicate that compared to firms that do not guide analysts' expectations and thus fail to beat analysts' forecasts, the stock performance of firms that achieve positive earnings surprises through pessimistic managerial guidance worsens over both the short and long run.

CONCLUSIONS

This study examines how market participants, specifically, the investors, react to the expectations management game in the post-Regulation FD period. The stock return tests results suggest that firms are "punished" for achieving positive earnings surprises through expectations management. The negative stock

price effect as the result of the pessimistic guidance (-10.2 percent on average) dominates the positive stock price effect (1.7 percent on average) associated with the positive earnings surprise at the earnings announcement. Furthermore, using a matched-sample design, I find that both the short-term stock return over the "combined guidance plus earnings announcement window" and the long-term total period return are more *negative* for guidance firms than for firms that do not guide and thus fail to beat the expectations. One limitation of the study is that I focus only on the capital market consequences of the expectations guidance game. It seems that firms are not better off (in terms of stock performance) by guiding analysts' forecasts to achieve positive earnings surprises. However, other factors, such as management's reputation considerations and stock-based compensation may explain why firms engage in expectations management. Moreover, I do not consider the risk and costs of *unsuccessful* expectations management activities, e.g. investors' reactions to the *Guidance-Miss* firm-quarters (firm-quarters that provide guidance, but still fail to beat the forecasts). I leave these questions to future research.

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ACCOUNTING FOR CONVERTIBLE BONDS: CURRENT PRACTICES AND PROPOSED CHANGES

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ABSTRACT

Convertible bonds are financial instruments used by corporations to raise funds. Investors buy them for both their return and potential equity feature. To make the bonds more attractive to investors and to lower the bond interest rate, the corporations give investors the opportunity to receive equity shares at a time of their choosing during the life of the bonds. According to the generally accepted accounting standards issued by the Financial Accounting Standards Board, convertible bonds in the U.S. are accounted for as bonds, ignoring the equity option imbedded in these instruments. In the rest of the world, convertible bonds are accounted for according to the international financial reporting standards of the International Accounting Standards Board. Under international financial reporting standards, convertible bonds are bifurcated into liability and equity components. Should the U.S. standards change? Will such a change result in financial statements that are more transparent and representationally faithful? This paper aims to answer these questions and propose recognition, measurement, and reporting procedures that will implement the answers.

JEL: M41, M48

KEYWORDS: Convertible Bonds, GAAP, IFRS, IASB, FASB

INTRODUCTION

Accounting for convertible bonds (CBs) have been an obstacle in the path to convergence between the generally accepted accounting principles (GAAP) issued by the Financial Accounting Standards Board (FASB) and the international financial reporting standards (IFRS) issued by the International Accounting Standards Board (IASB). CBs generally sell at face value. In this scenario, GAAP records the debt at face value and avoids measurement of the conversion feature. However, IFRS measures the debt as the discounted present value of future cash flows using an interest rate (normally higher) of similar debt instruments without the conversion option, and the difference between the debt and cash received is recorded as a bond discount and equity component associated with the conversion option. In other words, under IFRS, CBs are bifurcated into debt and equity components, and under GAAP, CBs are all debt. As a result, GAAP reports higher debt and lower equity compared to IFRS in the initial years, and higher profits (lower interest expense) over time. The study aims to show why recognizing both the liability and equity characteristics of CBs is a more faithful representation of the true economics of CBs. Given that there are close to \$200 billion of CBs outstanding in the US, the proposed accounting procedures will give the users of financial statements a more complete insight into the financial condition of the entities that issued those bonds. First, the interest and financing expenses reported under the proposal will reflect the periodic economic sacrifice sustained by the entities. Next, the amount of liabilities and equities reported will be more representationally faithful. Finally, the liabilities and expenses reported under the proposal will, over time, approximate the true cost of issuing CBs.

Fair presentation of a company's financial position is the aim of both the FASB and IASB. Unfortunately, when the nature of a transaction cannot readily be determined the reporting method to be applied is unclear (Rue, Stevens, & Volkan, 1996). That is why financial statement preparers, auditors, users, and the Security and Exchange Commission (SEC) are requesting consistent and understandable reports that timely measure and recognize economic benefits and sacrifices. They want to know if the fair value measurement as implemented by the IASB is appropriate, or if it will have a negative effect on the numbers. They want principle-based standards rather than rule-based standards. These new proposed standards would call for objectives that provide consistent and understandable information (Trott, 2009). During the past two decades, very few researchers addressed the well documented problems in accounting for CBs. Thus, revisiting the accounting practices used for CBs may result in renewed interest by standard setters, more transparent accounting standards, and better reporting for debt instruments. Thus, it is warranted to review the disagreements concerning accounting for CBs and their presentation in the financial statements. In addition, the accounting procedures proposed in this paper may solve the accounting and reporting disparities that exists between U.S. and international standards.

The remainder of the paper first reviews the pertinent literature. The proposal to change accounting for CBs, along with its economic impact and theoretical justification is presented next. Following this presentation, methodological issues and the results of the analysis of the economic impact of the proposal are discussed. The study concludes with a discussion of the impact of the proposal on global accounting harmonization and suggestions for future research.

LITERATURE REVIEW AND BACKGROUND

Literature Review

Disagreements over the basic accounting recognition and measurement theories underlie the need to reexamine the accounting for CBs and revise the measurement, recording, and reporting CBs (Trott, 2009). The CBs were first introduced in the mid-19th century. CBs are used by companies (issuers) that need an inexpensive way to finance growth, to take advantage of tax benefits, to minimize the impact of financing on financial ratios, and to help mitigate cash flow problems. They also give many benefits to investors who may hold the bonds and receive returns until the bonds are called or demand conversion into entity's stock at a price lower than the current market price. Although CBs are issued as a debt, they can be converted into equity by the holders when they convert the investment into stocks of the issuing company. This characteristic makes the bond act more like a hybrid financial instrument because one part is interpreted as liability and the other is interpreted as an equity option which constitutes a contingent obligation to issue stock. (Stevens, Volkan, and Baker, 1996). CBs are generally issued with a coupon rate lower than those bonds with similar risk characteristics but no conversion option.

Generally, investors buy the CBs when the underlying stock price is lower than the face value of the CB. If the stock price rises above the stated call value of the CB, the conversion will benefit the investor as they will convert their claims into equity when the conversion value exceeds the effective call value (Lyandres & Zhdanov, 2013). Alternatively, the investors may not always benefit because issuers may call the bond before the price exceeds the conversion value. Finally, there are many reasons why neither the issuer will call the CBs nor the investors demand conversion when the stock value underlying the CB exceeds the call value. In fact, most CBs are not called when that equilibrium point predicted by finance theory is reached (Stevens, Volkan, and Baker, 1996). Several research projects that attempted to clarify and improve upon the IFRS method of bifurcating the debt and equity portions of CBs. A study by Grimwood and Hodges (2002) proposed a method that would calculate the equity portion of the transaction by utilizing the Black Scholes model of valuing financial instruments, primarily stocks. The method aimed to estimate the fair value of the conversion option based on a range of potential values and the likelihood that the company's stock will match the values within that range. The study provided insight into the three factors that primarily

drive the value of CBs; stock price, interest rate, and credit risk. The latter of these can be easily overlooked, but considering that the majority of CBs, historically, are issued by smaller companies, or startups, credit risk becomes an important factor in determining the value of a CB.

The volatility of stock belonging to a small or start-up company's stock is much greater than an established stock. Because of these factors, simply calculating the difference between the debt portion and the principal value to derive the residual value attributable to the conversion option is not a faithful representation of the economic sacrifice. Sarkar (2003) showed that this problem may be solved by periodic re-measurement of the conversion option. With the conversion option valued based on a percentage of probable landing points within a range, the total expense (i.e. interest plus the economic sacrifice of exchanging stock at a lower value) recognized on a periodic basis would be less susceptible to the large swings that are likely to occur when revaluing the conversion option based on the volatile share price of a stock belonging to a small or start-up company. Theoretically, the lowest point on the range of probable values upon exercising the conversion option would be no less than the value of the bond at maturity. However, this is where the credit factor, mentioned above, comes into play. If a firm is concerned about the possibility of default, the bond could be called early, in order to ensure that some value is recouped.

While the FASB is concerned that requiring the separation of the debt and equity portions of a CB would be difficult for some smaller companies (Garneff & Reichert, 2002), requiring the recognition of the impact a CB has on the equity of an issuer would enhance the comparability of financial statements across the globe, satisfying one of the most basic and original qualities of accounting. Furthermore, another study provides convincing evidence that such recognition would enhance analyses of U.S. companies by providing a more transparent and faithful representation of a company's financial statements (Clark, 1993). The study showed that current GAAP misrepresents the debt to equity ratios of companies engaged in CB transactions. Finally, the Financial Accounting Standards Committee of the American Association (AAA FASC) has weighed in by a pair of studies that recommend the recognition of the equity impact of CBs and the measurement of the true cost of financing (AAA FASC, 2001 and 2010).

Because of the ongoing concern for the accounting and presentation of CBs, both the FASB and the IASB are analyzing criticisms and requests emanating from stakeholders. Each Board has held several meetings and issued discussion papers to determine if the codifications need to be updated. They both are showing intent to simplify the requirements for reporting CBs and other financial instruments. For example, the FASB issued a discussion paper to receive public comments on the proposed methods to account for financial instruments that contain equity characteristics. This project was intended to distinguish between the equity and liability versus assets, and three different approaches were suggested. From the three options, the FASB concluded that the basic ownership approach will be most useful to investors because it simplified the requirements issuers and auditors had in order to present the information. This approach required the CBs to be measured at fair value with changes reported in income. Thus, changes in the issuer's share prices would ultimately impact net income. The Board wanted to know if this approach would work well for companies (FASB, 2007). Many suggestions have been made in the aftermath of meetings held by the Board, which included discussions of improving the financial presentation of CBs. For instance, the FASB held many meetings to address the improvements necessary to ensure the usefulness of reporting financial instruments. The project intended to create common standards that will make the information more comprehensive to users. Decisions of this ongoing project have been updated many times. However, the Board has not been able to arrive to solid conclusions. In one of the most recent meetings on October 2017, the Board visited the working definitions of assets and liabilities. In December 2017, it also discussed the continuing issue of distinguishing liabilities from equity, which has been an ongoing agenda item since 1986. The Board's technical agenda continues to include projects to address recognition, measurement, presentation and disclosure of CBs in the financial statements. Though a final decision has not been made, the Board is making the effort to find a resolution to this matter (FASB, 2017).

Although the IASB had already established a method to account for CBs (IASB, 2003), it was also seeking feedback in a discussion paper entitled *Financial Instruments with Characteristics of Equity* (IASB, 2018). The paper started by clarifying that the IASB was not involved in the project paper published by the FASB on November 2017. The IASB stated that it wanted to provide its own views on the subject and discuss the research projects it initiated to resolve any remaining issues in this area.

In the paper, the IASB explained how the IAS 32 principles should be applied and addressed the contingent settlement provisions, and contradictions to the basic ownership approach that exist in the U.S. GAAP, as well as the concept of embedded derivatives. The IASB discussed whether CBs could be analyzed as an equity host and an embedded derivative asset if the issuer held the option to settle the claim. With this, the IASB members would like to know if separating the embedded derivatives could be a potential solution. According to the FASB Accounting Standards Codification (ASC) 815-15, embedded derivative instruments must be separated from the host contract and accounted for separately as a derivative instrument by both parties only if (1) Risks and characteristics are not clearly related to the host contract, (2) the hybrid instrument is not required to be measured at fair value under GAAP, and (3) a separate instrument with the same terms would be accounted for as derivative instrument (Flood, 2017).

In search of improving existing requirements of the IAS 32, the IASB published an update following the meeting held in January 2018. In the meeting, the members deliberated on the results of the responses to the discussion paper. Many stakeholders submitted several outstanding issues relevant to this standard. The IFRS' predominant issue was about when an entity has the option to limit the amount of a claim to that entity's available economic resources (i.e., using the CB's call option when the underlying stock value exceeds the face value), but also has the option to settle at an amount that is affected by other variables independent of the entity's economic resources (i.e., not issuing a call as the stock price rises and investors continue to hold and not convert the CB). The IASB maintained the position that the instrument could be analyzed as an equity host and an embedded derivative asset if the issuer held the option to settle the claim. All 14 members of the IASB decided to raise the issue in the discussion paper to obtain additional feedback on this predominant issue. It is clear that both the FASB and the IASB continue to search for ways to help companies make better judgments on the classification of financial instruments, and to issue standards that improve the presentation of CBs. However, a solution is yet to be determined. The paper proposes changes to the current standards in order to make reporting for CBs more transparent and representationally faithful.

Current Status of Accounting for CBs

Having characteristics of both debt and equity has proven to be the root of many differences in opinions over recent years regarding how CBs should be treated and accounted for (PwC, 2017). Due to the inherently complex nature of CBs, it is not surprising that there are differences in opinions between the FASB and the IASB. These institutions have had differing perspectives on the matter over their beliefs regarding how professionals should treat these financial instruments when preparing financial statements. In general, standard setters diverge from each other with respect to the dual nature of CBs and on the issue of separating the debt and equity characteristics. Currently, the FASB is of the belief that, until a convertible bond is officially exercised and exchanged for shares of ownership, the financial instrument is solely debt (FASB, 2008). Previously, GAAP had allowed, and provided guidance for, the bifurcation of these debt and equity components, but decided to follow the single instrument route with the issuance of the Accounting Principles Board's (APB) Opinion No. 10. Opinion No. 10 argued that it was too difficult and not feasible to accurately value the embedded derivative before the option is exercised.

When the conversion option attached to the bond is exercised, there are two accepted methods of accounting under GAAP. Under the book value method, any change in the fair value of the stock is not considered after issuance of the bond, and therefore no gain or loss is recognized upon conversion. The second method, referred to as the market value method, allows for recognition of a gain or loss upon conversion by assigning

the fair value of the stock to the transaction. However, the market value method is seldom, if ever, used (Stevens, Volkan, & Baker, 1996, p. 131). For one, if the fair value of the stock is lower than the value of the bond at maturity, no reasonable professional would exercise the option, except for concerns of default. Secondly, no reasonable professional will willingly record a loss for his/her company when the option is exercised, so he or she would choose to use the book value method virtually every time.

Meanwhile, IFRS provides guidance for the bifurcation of the debt and equity qualities of CBs. Under International Accounting Standard (IAS) 32, IASB defines equity as any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities (IASB, 2003). Given this definition, it is not difficult to see why the IASB believes that the debt and equity components of CBs should be bifurcated. The fair value of the financial instrument is provided by the amount of cash exchanged for the CB. Further, the fair value of the liability in the contract can be readily determined by utilizing a present value calculation of the future cash flows. After these future cash flows are discounted using an appropriate interest rate (normally higher) of similar debt instruments without the conversion option, the resulting discounted value is subtracted from selling price of the bond to determine the bond discount and equity component on day of issue. The exclusion of the equity characteristics of the CBs from the accounting process used in the U.S. overlooks the true financing cost associated with the transaction. A professional would not invest in a bond that promises low interest payments to maturity than would normally be available on the open market if the conversion option is not included in the transaction. Therefore, it is an unavoidable truth that the conversion option holds real economic value, and current GAAP does not accurately depict the potential obligation and sacrifice that the issuing company has.

Computation of a fully diluted earnings-per-share amount is the only instance under GAAP where the existence of the bond's conversion option is recognized. Given the differences in tax regulations between the U.S. and its international counterparts, U.S. companies are incentivized to leave CBs outstanding, instead of calling the bond once the market value of the related stock option has appreciated above the value of the bond at maturity. This is due to the availability of the interest deduction under U.S. tax laws, but not to dividends. Because of this difference, it can be challenging to accurately compare a company based in the U.S. with an international company. While GAAP overlooks the true financing cost of CBs, IFRS also has many flaws. The separation of debt and equity under IFRS is only applicable if the conversion option is constructed to be fixed-for-fixed, meaning a previously established number of stock shares are to be provided as consideration in lieu of the bond's principal value when the conversion option is exercised. If the exchange is not considered to be fixed-for-fixed, the CB is separated into debt and an embedded derivative liability (IASB, 2004). While IFRS provides guidance for the bifurcation of the debt and equity components, this separation is a challenge, especially for smaller companies that often do not have the proper resources to accurately measure the value of options in the unreliable markets that typically accompany CBs issued by small companies (Garneß & Reichert, 2002). Given the background of the contentious theoretical and practical concepts underlying the accounting for CBs and the divergence in opinion between the U.S. and international accounting standards, it is warranted to identify the pros and cons of each argument and propose a solution that fairly and faithfully represents the true nature of these dual-natured financial instruments.

A Proposal for Change – Economic Sacrifice

Considering the various research projects and the accounting standards in effect, this study develops a new accounting process for CBs that would provide a more accurate and faithful representation of the classification of CBs. The proposal would make financial statements easier to understand and compare across borders, while remaining simple, cost effective, and practical. While the use of the Black Scholes Model to calculate the value of these conversion options inspires confidence that it would provide a more accurate representation of the option's value, this process would not be practical, or cost effective, for many smaller companies to incorporate into their processes. However, the procedures proposed in this study are

much simpler than the procedures used by companies that use the Black Scholes Model or the existing IFRS methodologies. Thus, companies that do not currently have the necessary resources to use these processes will benefit if the procedures proposed in this study are adopted.

This study proposes to follow the claim on equity/earnings method during the life on the bond. In this method, interest expense is the product of the CBs face value and stated interest rate. Additionally, to portray the economic sacrifice sustained by the issuing firm more appropriately, a debit to financing expense, and a corresponding credit to the conversion liability (obligation to issue shares) would be periodically recognized. This amount (referred to as the claims to earnings) is computed as follows: $\text{net income} * [\text{total convertible bonds} / (\text{total convertible bonds} + \text{total stockholders' equity})]$ (Stevens, Volkan, & Baker, 1996, p. 136). At any given date, the balance in this liability account represents the economic sacrifice sustained by the issuer of the CBs. Under this method, once the conversion option is exercised, the related balances in bonds payable and the conversion option liability would be eliminated and the sum of these two would be credited to contributed capital. Compared to the current accounting standards, the proposed method will result in a smaller retained earnings balance and a larger paid in capital balance.

Table 1 illustrates the accounting for CBs under current GAAP, proposed GAAP, and current IFRS. For brevity, assume a three-year bond is sold at face value with a 4% stated rate, and 6% discount rate is applicable. The conversion feature is exercised at the end of three years after net income steadily rises at \$80, \$90 and \$100, and common stock related equity is reported at \$800, \$900 and \$1,000 each consecutive year. As illustrated, GAAP reports higher debt and lower equity compared to IFRS in the initial years, and higher profits (lower interest expense) over time. In contrast, the proposed method recognizes the impact of the conversion feature over time, with lower profits associated with the conversion than either method. This proposal avoids the issues related to the volatility of the stock values related to smaller companies that issue CBs, and more closely follows U.S. GAAP's guidance for accounting for changes in stock values. It also simplifies reporting for U.S. companies, as this method would make it unnecessary to report diluted EPS for each CB. The proposal already includes the economic sacrifice/financing expense related to the conversion options in the computation of net income. With that activity no longer necessary, it is much more difficult to argue that the cost of implementation outweighs the benefits of comparability across all companies.

Impact of the Proposal

Currently, CBs are classified as a liability in the financial statements under GAAP. Since they are treated solely as a liability at issuance as well as during the periods in which they are outstanding, accounting for the equity component of CBs is ignored until conversion. This presents a problem because such instruments include an option that may be settled before transferring assets (Botosan, Koonce, Ryan, Stone, & Wahlen, 2005, p. 170). By delaying recognition of CBs' equity component, the GAAP method of accounting potentially understates/overstates both the liability and equity on the balance sheet and net income. The proposed accounting addresses the duality of CBs by including in the periodic financing cost both the usual calculation of interest expense as well as the claim on earnings that CB holders would have on an "if converted" basis. The competing alternative to account for CBs would include the probability of conversion in the computations of the debt and equity components at each statement date. The likelihood of a CB being converted changes over time, and ideally, the accounting would incorporate these changes in income by using fair values of the instruments in the issuers' financial statements (Botosan et al., 2005, p. 178).

Table 1: Illustration of Current GAAP, Proposed GAAP and Current IFRS Accounting for a Three-Year Convertible Bond

Date	Description/Accounts	Assets =		Liabilities +			Equity	
		Cash	=	Bonds Payable	Bond Discount	Conv Liability	+ Contributed Capital	RE
GAAP:								
1/1/12	Issuance	\$100.00	=	\$100.00				
12/31/12	Interest Expense (a)	(\$4.00)	=					(\$4.00)
12/31/13	Interest Expense (a)	(\$4.00)	=					(\$4.00)
12/31/14	Interest Expense (a)	(\$4.00)	=					(\$4.00)
12/31/14	Conversion		=	(\$100.00)			\$100.00	
12/31/14	Closed-Out Ending Balances	\$88.00	=				\$100.00	(\$12.00)
Proposed GAAP:								
1/1/12	Issuance	\$100.00	=	\$100.00				
12/31/12	Interest Expense (a) Financing Expense (b)	(\$4.00)	=			\$8.89		(\$12.89)
12/31/13	Interest Expense (a) Financing Expense (c)	(\$4.00)	=			\$9.00		(\$13.00)
12/31/14	Interest Expense (a) Financing Expense (d)	(\$4.00)	=			\$9.09		(\$13.09)
12/31/14	Conversion		=	(\$100.00)		(\$26.98)	\$126.98	
12/31/14	Closed-out Ending Balances	\$88.00	=				\$126.98	(\$38.98)
IFRS Treatment:								
1/1/12	Issuance (e)	\$100.00	=	\$100.00	(\$5.35)		\$5.35	
12/31/12	Interest Expense (f) Interest Payment (g)	(\$4.00)	=		\$1.68			(\$5.68)
12/31/13	Interest Expense (h) Payment (g)	(\$4.00)	=		\$1.78			(\$5.78)
12/31/14	Interest Expense (i) Interest Payment (g)	(\$4.00)	=		\$1.89			(\$5.89)
12/31/14	Conversion		=	(\$100.00)	\$0.00		\$100.00	
12/31/14	Closed-out Ending Balances	\$88.00	=				\$105.35	(\$17.35)

Assume a three-year bond is sold at face value with a 4% stated rate, and 6% discount rate. The conversion feature is exercised at the end of three years after net income steadily rises at \$80, \$90 and \$100, and common stock related equity is reported at \$800, \$900 and \$1,000 each consecutive year. As illustrated, GAAP reports higher debt and lower equity compared to IFRS in the initial years, and higher profits (lower interest expense) over time. In contrast, the proposed method recognizes the impact of the conversion feature over time, with lower profits associated with the conversion than either method.

Interest Expense: $(\$100 \text{ par} \times 4\%) = \4.00

Financing Expense: $(\$80 \text{ NI} \times [\$100 \text{ Debt} / (\$100 \text{ Debt} + \$800 \text{ Common Equity})]) = \8.89

Financing Expense: $(\$90 \text{ NI} \times [\$100 \text{ Debt} / (\$100 \text{ Debt} + \$900 \text{ Common Equity})]) = \9.00

Financing Expense: $(\$100 \text{ NI} \times [\$100 \text{ Debt} / (\$100 \text{ Debt} + \$1,000 \text{ Common Equity})]) = \9.09

Bond Issue Price: Present Value of \$100 Bond Discounted at 6% = \$94.65

Interest Expense: $(\$94.65 \text{ Present Value of Bond} \times 6\%) = \5.68

Interest Payment: $(\$100 \text{ par} \times 4\%) = \4.00

Interest Expense: $(\$96.33 \text{ Present Value of Bond} \times 6\%) = \5.78

Interest Expense: $(\$98.11 \text{ Present Value of Bond} \times 6\%) = \5.89

Although both alternatives incorporate the separation of CBs' debt and equity components, they each impact the financial statements as well as investors' confidence in financial reporting. They both enable the income statement and balance sheet to provide better measures of interest expense and net income to residual claimants as well as liquidity, solvency, and the magnitude of residual claims (Botosan et al., 2005, p. 178). In this way, the financial statements reflect the CBs' likelihood of being converted and would more accurately show the value of the CBs. However, the alternative this study selected is less costly and much easier to implement for those firms that are more likely to issue CBs.

Including in the value of CBs the probability of being converted brings with it several limitations. It is important to account for CBs in a way that increases investor confidence in financial reporting. It is very likely that an accounting method that requires constant revaluation of liability and equity components will negatively affect investor confidence in financial reporting because there would not be a sense of consistency and it may be difficult to understand the reason behind changing debt and equity values. According to an analysis by Credit Suisse and Deloitte, relatively small market-cap companies of less than \$2 billion accounted for about 50 percent of the convertible bond issuances (Marcy, 2007). Probability driven computations, therefore, could greatly affect younger, growing companies who may issue CBs primarily to obtain funds to help expand the company with less stock dilution. These limitations combined with the finding that security-issuing companies cater to changes in investor demand when deciding on the security type to be issued, are the reasons that the accounting proposed in this study was recommended (de Jong, Duca, & Dutordoir, 2013, p. 72).

Theoretical Support for the Proposal

Under GAAP, separation of convertible debt into a liability and an equity component is precluded unless one of several conditions is satisfied, whereas under IFRS the conversion option must always be separated as an equity component (Deloitte Touche, 2017). IFRS states in IFRS 9, section 4.3.2., that CBs must be accounted for using the fair value measurement basis with changes in fair value accounted for in other comprehensive income (IASB, 2014). In addition, the IASB states in IAS 32 that CBs are both financial liabilities and equities and both aspects must be reported in financial statements. Sections 28-32 of IAS 32 deal with how to allocate the CBs into liability and equity (IASB, 2003). The FASB and IFRS have been working on a convergence project since they reached a memorandum of understanding with the Norwalk Agreement in 2002 (Afterman, 2015). Even though there has been some substantial convergence on some major projects (such as business combinations, fair value measurement, revenue recognition, and share-based payments to name a few) and both organizations state that they continue to collaborate and cooperate, it appears that convergence had come to an end (Afterman, 2015). Even the SEC, after making a historic ruling allowing foreign issuers trading on the U.S. markets to file IFRS-financial statements without reconciling them to GAAP, has now retracted its statements to force U.S. companies to adopt IFRS and is simply stating that it would like to see global standards in the future (Afterman, 2015).

Wang and Zhaung (2017) discuss in their study that using fair value methods, especially Level 2 and Level 3, create a high degree of unreliability in the measurement of a bond's value and lower the quality of the financial reporting, while increasing the corporation's cost of debt. Miller and Bohanson (2007) presents a concise description of the three levels of inputs in measuring fair values, identifies the processes that management must follow in estimating the fair values, and describes inputs to measurement models without specifying which models management should use. While the models currently in use allow measurement of bifurcation of CBs with a much greater degree of reliability (Trott, 2009) for large, established companies, the statements by Wang and Zhaung (2017) still hold true in case of start-up or small and medium size companies. Currently, there is a large number of CBs traded in the open market and the fair values of some CBs can be evaluated with a great deal of precision. However, for more than 50% of the CB that are issued by small and medium size companies the only relevant information come from Level 2 or Level 3 inputs and the unreliability which Wang and Zhaung (2017) are concerned with is a major concern. Thus, it is warranted to consider an accounting process that does not rely on fair valuations and treats the CBs as held-to-maturity instruments until they mature or are called by either party.

The crux of the matter is the level of support for adopting global accounting standards in the U.S. While the current environment is not conducive to adopting global standards, the Sarbanes-Oxley Act of 2002 calls for a move to adopt principle-based accounting standards (which IFRS is) to replace the rule-driven approach under GAAP (Seay, 2014). The SEC completed a study in which it recommended objective-focused standards instead of the rules-based standards currently in place (Seay, 2014). The fear is that rules-

based standards often enable company financial engineers to structure a transaction to achieve technical compliance with a standard while evading the standard's intent, thus contributing to a lack of comparability among financial statements (Seay, 2014). Another issue to look at is the wide-spread acceptance of IFRS among the nations of the world. In 2005, IFRS surpassed GAAP as the single most widely used accounting standard in the world (Seay, 2014). This widespread adoption of IFRS has placed GAAP users, especially small firms, at a competitive disadvantage regarding foreign investment (Seay, 2014). The case for IFRS adoption in the United States and in other countries is generally made on the basis of improvements in reporting quality and comparability across firms and countries. Financial reporting and disclosure quality are generally linked to economic outcomes, such as market liquidity, cost of capital, and corporate decision making (Seay, 2014).

DATA AND METHODOLOGY

The accounting procedures proposed in this study impact the financial statements by increasing the expense associated with CBs. Over the life of the CB, the retained earnings would be lower and the liabilities would be higher, increasing the debt-to-equity ratio. Stevens, Volkan, and Baker (1996, p. 136) explain that by recording two expense components the holding right to convert the CBs is recognized. It is important that accounting for CBs recognize both the claims on debt and equity because the distinction between liabilities and equity matters to stakeholders and affects how they use and assess the credibility of the information (Botosan et al., 2005, p. 170). In this way, the proposed approach would be more representationally faithful than the current GAAP and the alternative approach that is based on periodic revaluations of debt and equity components. The proposed accounting addresses the conversion option that current GAAP standards do not, but it does so in a way that is easier to implement than the probability approach.

To examine descriptive statistics of the proposed claim to equity approach, data is gathered from the Compustat Annual database. The claims to earnings amounts are computed by multiplying net income with the ratio of convertible bonds to the sum of convertible bonds and total stockholders' equity. All firm year observations reporting values for convertible debt for the fiscal years 1998 – 2017 are selected. Observations with negative net income or owners' equity are removed from the sample. Further, outliers for total assets, total liabilities, and owners' equity at the 1st and 99th percentiles are removed. This results in a final sample of 7,845 observations. Finally, t-tests are conducted to observe if there are any statistically significant variances in the behavior of the ratio of claims to earnings to net income over the time-period studied. First, a t-test is conducted to observe statistically significant differences between the pre-financial crisis (1998-2007) and the post-financial crisis (2008-2017) periods. The t-tests are then repeated to observe any differences between the entire sample and each period separately.

RESULTS

Table 2 reports descriptive statistics for sample firms. The mean value of assets, liabilities, owners' equity, net income, convertible debt and claim to earnings are reported. Further, the results are divided by different time periods: for all years, by period (pre- and post-financial crisis), and by year. Results show that CTE as a percentage of net income appears to be economically significant throughout the sample period and consistently between 9%-12%, with an average of 10%. It is interesting to note that stock returns over the same time-period averaged 8% which closely follows the economic sacrifice indicated by the proposal.

Table 3 shows the results of the t-tests of statistically significant differences in the behavior of the ratio of claims to earnings to net income (CTE/NI) over the time period studied. First, the pre-financial crisis period CTE/NI ratio values were compared to the post-financial crisis ratio values. The test of differences indicates that there is a statistically significant difference in the CTE/NI ratio between these two periods. Next, the pre-financial crisis values were compared to the values of the entire sample. This comparison showed no statistically significant differences.

The results appear to be driven by the relatively lower net incomes and higher convertible bond amounts encountered during the post-financial crisis period. Low values of net income and high values of convertible bonds make the ratio of convertible bonds to the sum of convertible bonds and equity higher compared to the values encountered in the pre-financial crisis period. This, in turn, makes the CTE/NI ratio higher. Confirming this inference, the comparison of the post-financial crisis values to the values of the entire sample reveal a statistically significant difference.

Impact of the Proposals on Accounting Harmonization

Convertible bonds are treated entirely as debt under GAAP whereas IFRS reports this financial instrument as part debt and part equity. With stakeholders all over the globe, greater comparability helps improve investor confidence and understanding so they can make better, more informed decisions. The move to account for the debt and equity parts of CBs separately could be a step toward international accounting standards convergence (Marcy 2007).

Table 2: Descriptive Statistics for Observations (in \$ Millions) with N = 7,845

Periods	Assets (Mean)	Liabilities (Mean)	Owners' Equity (Mean)	Net Income (Mean)	Convertible Debt (Mean)	CTE (Mean)	CTE/NI
1998-2017	7,358	4,885	2,473	308	297	31	10%
1998-2007	7,317	4,952	2,365	311	292	31	10%
2008-2017	7,417	4,787	2,629	302	303	32	11%
1998	4,442	3,156	1,286	160	148	14	9%
1999	5,618	3,815	1,803	181	188	16	9%
2000	6,321	4,186	2,135	268	234	24	9%
2001	6,305	4,257	2,048	226	298	26	11%
2002	7,199	5,052	2,147	246	307	29	12%
2003	8,267	5,602	2,665	298	365	33	11%
2004	8,149	5,546	2,603	319	307	29	9%
2005	9,098	6,266	2,833	422	365	44	10%
2006	8,897	5,888	3,009	508	337	51	10%
2007	8,078	5,250	2,828	410	364	42	10%
2008	6,707	4,311	2,397	317	364	39	12%
2009	6,951	4,328	2,623	294	344	31	11%
2010	7,464	4,579	2,885	341	321	37	11%
2011	7,970	5,313	2,657	349	281	36	10%
2012	7,684	5,081	2,603	275	255	27	10%
2013	8,043	5,357	2,686	292	262	26	9%
2014	7,210	4,609	2,602	299	283	32	11%
2015	6,779	4,371	2,407	294	277	27	10%
2016	7,417	4,966	2,450	200	293	24	12%
2017	8,089	5,117	2,972	316	335	35	11%

*This table reports the mean values of Assets, Liabilities, Owners' Equity, Net Income, Convertible Debt, CTE (claim to earnings), and CTE/NI (the ratio of CTE to net income) over the time period studied. Where CTE is computed as follows: net income * [total convertible bonds / (total convertible bonds + total stockholders' equity)]. Results show that CTE as a percentage of net income appears to be economically significant throughout the sample period and consistently between 9%-12%, with an average of 10%. It is interesting to note that stock returns over the same time-period averaged 8% which closely follows the economic sacrifice indicated by the proposal.*

While the accounting procedures proposed in this study do not separate the debt and equity components of the CB at issuance, this proposal does account for additional expense and liability (economic sacrifice as a claim on earnings) over the life of the CB similar to the accounting treatment prescribed by the IFRS. Implementation of this proposal in the U.S. would require a shift toward harmonization with IFRS which, in large part, has not yet occurred. If the accounting proposed in this study were accepted by both the FASB and the IASB as a middle-of-the-road compromise, obvious cost saving advantages with the global convergence and harmonization would occur.

Table 3: Statistical Test of Differences of CTE/NI Ratios

		T-Value	P-Value	Significance
<i>Pre-Period vs. Post-Period</i>	1998-2007 (n=4,624) vs. 2008-2017 (n=3,221)	3.19	0.0014	***
<i>Pre-Period vs. All Years</i>	1998-2007 (n=4,624) vs. 1998-2017 (n=7,845)	1.57	0.1160	n/a
<i>Post-Period vs. All Years</i>	2008-2017 (n=3,221) vs. 1998-2017 (n=7,845)	2.10	0.0362	**

*This table reports the t-test analysis of statistically significant differences in the behavior of the ratio of claims to earnings to net income (CTE/NI) over the time period studied. *** and ** - Statistical significance at the 0.01 and 0.05 levels, respectively.*

CONCLUDING COMMENTS

The study aims to show why recognizing both the liability and equity characteristics of CBs is a more faithful representation of the true economics of CBs. The proposed accounting procedures give the users of financial statements a more complete insight into the financial condition of the entity. First, the interest and financing expenses reported under the proposal reflect the true periodic economic sacrifice sustained by the entity. Next, the amount of liabilities and equities reported are more representationally faithful. Finally, the liabilities and expenses reported under the proposal, over time, approximate the true cost of issuing CBs. After researching and evaluating the relevant literature, it is clear that recognizing the conversion value embedded in a CB would be beneficial. However, measuring this value to bifurcate the CB and revaluing both components at each financial statement date is both costly and unreliable, especially for small and medium size companies that issue more than half the CBs. Thus, this study proposes a simplified accounting method for CBs that improves comparability and reliability, and lowers implementation cost. In addition, the accounting method outlined in this proposal takes advantage of the theoretical precedents established by both the FASB and IASB in IAS 32 and 39, and IFRS 9 in a move towards convergence of accounting standards, while providing the added benefit of simplifying the measurements needed for implementation.

The Compustat Annual data base was used to gather information on the claims to earning for companies that had CBs outstanding during the 1998-2017 period as a measure of the expense associated with CBs under the proposal. In order to normalize the data, the claim to earnings of each company was computed as a ratio to net income, before using t-tests to determine whether the ratios behaved differently before and after the financial crisis, 1998-2007 and 2008-2017, respectively. In addition, each period results were compared to the entire period of the study (1998-2017).

Using the proposed method of CB expense recognition, the results indicate that CBs cost companies between 9% to 12 % of their profits— representing a sizable portion of profits worthy of disclosure and full accounting recognition. T-tests reported statistically significant differences in the claim to earnings of CBs as a ratio to net income, both pre- and post- financial crisis, and when comparing the cost of CBs in the post-financial crisis time period to the entire time period. As previously discussed in Results section, lower net income and higher convertible bond amounts appear to drive these results. The corporate world is no longer isolated by nation or geographical location. It is difficult to find a corporation that is listed on a major stock exchange that does not have either a subsidiary in a nation different from its geographical headquarters or investors who are based in a location outside the corporate home location. Thus, an accounting process is needed which is standardized globally and accurately reflects the economic realities of CBs so that investors can truly have comparability. The accounting process proposed in this study where the CB holders’ claim to issuers’ income is expensed along with ordinary interest accomplishes this objective.

The main limitation of this study is that the proposed accounting procedures for CBs are controversial. The proposal allocates a portion of earnings to financing expense and records a conversion liability until the CB is exercised or matures. Further research is needed to fully measure the financial impact of this proposal on the financial ratios of companies over broad time periods. In addition, further study is needed to determine whether the claim to earnings as measured in this study is a good proxy for the intrinsic value of the conversion option (the difference between call value of the CB and the underlying stock value using market prices). Finally, standard setters, practitioners and academics should be surveyed to determine whether sufficient support exists for the compromise position outlined in this proposal. While the proposed accounting is easy to implement by all firms, in order for the proposal to work, all parties need to agree that the claim to earnings is a good proxy for the equity component of the CB and the economic sacrifice the issuer has when the CBs underlying stock value exceeds the call value.

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EFFECTS OF ANALYSTS' COUNTRY FAMILIARITY ON FORECAST BEHAVIOR: EVIDENCE FROM CHINESE CROSS-LISTED FIRMS IN THE UNITED STATES

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ABSTRACT

This study provides empirical evidence regarding the effect of analysts' country familiarity on their forecast behavior. Prior research has generally agreed that local analysts outperform their nonlocal counterparts due to information advantage or local familiarity. However, the effect of country familiarity on analysts' earnings forecast abilities for foreign firms cross-listed in the United States is unclear. Using a hand-collected sample of Chinese cross-listed firms, I examine whether analysts who are familiar with these Chinese firms are associated with better performance in forecast accuracy, forecast dispersion, and information precision. Results indicate that country familiarity has a positive effect on analysts' earnings forecasts. Specifically, analysts who are familiar with Chinese cross-listed firms have higher accuracy and lower dispersion. Additional analysis suggests that the superior performance can be attributed to analysts' private information precision rather than public information precision.

JEL: F23, F37

KEYWORDS: Analyst Forecast Behavior, Local Analyst Advantage, Country Familiarity

INTRODUCTION

Prior empirical studies find that local analysts produce better forecasts than their nonlocal counterparts due to an information advantage or local familiarity (Malloy 2005, Bae et al. 2008, Green et al. 2014, O'Brien and Tan 2015). However, little is known about the effect of country familiarity on analysts' earnings forecast abilities for foreign firms cross-listed in the United States. Using a hand-collected sample of Chinese cross-listed firms, I examine whether analysts familiar with these Chinese firms (Chinese familiarity CFML) are associated with better performance, such as forecast accuracy, forecast dispersion, and information precision. To test the effect of analysts' country familiarity, I split all analysts who follow cross-listed Chinese firms into two groups, analysts with Chinese familiarity (CFML) and analysts without Chinese familiarity (NCFML). An analyst is classified into CFML group if he/she meets one of the following criteria: (1) the analyst has a Chinese last name, 2.) the analyst's brokerage office/branch is located in China mainland, Hong Kong, or Taiwan, 3.) the analyst travels to China frequently, or 4.) the analyst's research is focused on Chinese or Asian firms/markets. If an analyst does not meet any one of the four criteria, he/she is classified as NCFML.

The criteria are based on assumptions that analysts will enjoy country/local informational advantage via the same culture/language (Du et al. 2017), geographic proximity (Malloy 2005), or focused research area. Therefore, it is possible that analysts with Chinese familiarity might outperform their non-familiarity counterparts. However, behavior studies (Chen and Tan 2013) find that U.S. investors are more willing to buy or rely on services provided by U.S. analysts (the majority are analysts without Chinese familiarity) since investors are more familiar with these analysts. High demands from U.S. domestic investors may

motivate U.S. analysts to produce more accurate forecasts with low dispersion and high information precision.

Given the competing arguments, the effect of Chinese familiarity on analysts' earnings forecasts is an empirical question. Using a hand-collected sample of Chinese cross-listed firms from 2008 to 2015, I examine whether analysts who are familiar with Chinese cross-listed firms are associated with better performance in forecast accuracy, forecast dispersion, and information precision. Regression results show that analysts with Chinese familiarity outperform their non-familiarity counterparts by providing forecasts with higher accuracy and lower dispersion. Furthermore, I investigate the source of this superior performance. The difference reflected in forecast accuracy and forecast dispersion between the CFML group and the NCFML group can be attributed to analysts' public information precision or analysts' private information precision. Using Barron et al. (1998) model (BKLS model), I measure unobservable information precision with observable forecast accuracy and dispersion. Additional analysis reveals that analysts' Chinese familiarity advantage is mainly driven by analysts' higher private information precision rather than by the public information precision.

This study is related to the work of Comiran and Siriviriyakul (2019) paper and Du et al. (2017). Using foreign cross-listed stocks from 41 foreign countries, Comiran and Siriviriyakul (2019) demonstrate the local advantage vanishes for cross-listed stocks and nonlocal analysts can provide more accurate forecasts. The current paper is different from theirs in three respects. First, I only examine Chinese cross-listed firms to avoid institutional differences problems from various home countries, a concern usually found in international studies. Second, my analysts' Chinese familiarity (CFML) is hand collected and can provide more direct and more accurate practical implications. Third, I extend previous studies by testing dispersion and information precision to identify the possible source for the observed analyst forecast accuracy differences. Du et al. (2017) examines how culture affects analysts' forecasts and finds that for Chinese cross-listed firms, analysts with Chinese ethnic origin issue more accurate forecasts as they share the same culture with these Chinese firms. My study is different in two respects. While their paper relies only on cultural proximity, my paper uses a broader definition of Chinese familiarity, which includes both cultural measure (CFML criterion 1) and non-cultural measures (CFML criterion 2/3/4). I argue that although culture plays an essential role in analysts' behavior, non-cultural factors, such as analyst's office location, travel destination/frequency and research focus, can also benefit analysts with critical information collection. In addition, I extend their paper by testing dispersion and information precision to investigate the channels for different forecast accuracy.

This paper makes two main contributions. First, it provides direct evidence regarding analysts' Chinese familiarity on their forecast behavior. Prior literature has investigated local informational advantage in the U.S and other countries (Orpurt 2004, Chang 2010). However, studies on country advantage for cross-listed firms are limited. This paper uses hand-collected data to provide more accurate evidence on the effect of Chinese country familiarity. Secondly, although prior studies have found that local/culture proximity can improve analysts' forecast accuracy, this paper is the first paper that examines the effect of country familiarity on analyst information precision using Chinese cross-listed firms as the sample. Venkataraman (2001) argues that "it is not possible to unambiguously characterize changes in the precision of common information and idiosyncratic information based on measures such as dispersion or squared error in the mean forecast" (Venkataraman 2001, page 2). My paper extends prior studies by showing that the superior performance for analysts with Chinese familiarity results mainly from their more precise private information rather than from different public information precision. The results support the hypothesis that analysts with Chinese familiarity can use their advantage to gain valuable private information about these cross-listed firms, which in turn increases their forecast accuracy and decreases their forecast dispersion.

The remainder of the paper is structured as follows. The next part reviews literature and develops the hypothesis. The following section presents the methodology, data and sample. The paper continues by providing the results and analysis. The paper closes with some concluding comments.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A large body of literature examines the effect of geographic proximity on analysts' forecasting performance. Evidence from U.S. studies generally finds a positive association. Local analysts can directly inspect local firms, arrange personal contacts with firm management, or acquire information about local firms' operations. Analysts may also receive valuable information from other local channels (for example, customers, suppliers, and competitors) in a cheaper and faster manner. The informational advantage enables analysts with local familiarity to provide more accurate forecasts. For example, Malloy (2005) compares local analysts' performance with distant analysts' performance. They argue that local analysts can obtain important private information by meeting with suppliers, managers, and employees. They also know the local market/economy better. These advantages will help them issue more accurate forecasts.

However, results from international cross-country studies are inconclusive on the effect of geographic proximity. Although Bae et al. (2008) document local analyst advantage in 32 countries by showing that forecasts from analysts who stay in the same country as firms are more accurate than non-resident analysts, Comiran and Sirlviriyakul (2019) find that local advantage disappears for firms cross-listed in the U.S. market. In fact, nonlocal analysts outperform local analysts for these firms. They argue that when foreign firms are cross-listed in the U.S., U.S. domestic investors are more interested in these firms than non-cross-listed firms. As a result, investors demand service for these firms when they make investment decisions. Therefore, nonlocal (predominantly U.S.) analysts might spend more time and devote more effort to produce more accurate forecasts.

My study focuses on Chinese firms that are cross-listed in the U.S. Analysts with Chinese familiarity (CFML) may have better performance than analysts without Chinese familiarity (NCFML) for several reasons. First, these analysts share the same cultural and language background with these cross-listed firms (criterion 1). Du et al. (2017) find that analysts of Chinese ethnic origin (with Chinese last names) issue more accurate forecasts due to their language and cultural advantage. Although Chinese firms file their reports in English, analysts with the same cultural background can "read between the lines" and have better interpretation. Second, analysts with Chinese familiarity are usually geographically closer to the Chinese market (criterion 2), travel to China frequently (criterion 3), or focusing on Chinese firms (criterion 4). Therefore, they have better access to valuable private information via personal connections, communication with local employees, customers, and competitors. They can collect first-hand information, which is usually not available from firms' public announcements or reports. Following this argument, analysts with Chinese familiarity might have better forecasting performance than analysts without Chinese familiarity.

U.S. investors generally prefer U.S. analysts (predominantly analysts without Chinese familiarity). The high demand for U.S. analysts may motivate analysts to generate more accurate forecasts. Chen and Tan (2013) find that when investors are more exposed to an analyst's name *per se*, investors' reliance on that analyst's forecast reports will be increased. This experimental study suggests that participants subconsciously associate the analyst with higher credibility when his/her name is shown more times than other analysts. More importantly, the study indicates that once participants are familiar with the analyst's name, participants ignore the analyst's prior performance records. In other words, when participants form their own earnings forecasts to a company, they would rely more on the analyst's reports whose name is more familiar, no matter if the analyst's prior performance is good or bad. The mere exposure effect from the Chen and Tan (2013) study is consistent with the Bonner et al. (2007) empirical research. Using analysts' celebrity status as a measure of familiarity, they find that investors have stronger reactions to forecast revision from celebrity analysts. They explain the finding as "the celebrity status of analysts will

affect investor reaction to forecast revisions...because these analysts' names are more familiar" (page 482). Investors treat forecasts from familiar analysts as more accurate and precise because analysts with more familiar names are perceived to have higher credibility. If this is the case, then U.S. analysts (predominantly analysts without Chinese familiarity) will be in high demand, which in turn will motivate U.S. analysts to produce earnings forecasts with higher accuracy and lower dispersion, consistent with the finding of Comiran and Sirlviriyakul (2019). Given the competing arguments discussed above and mixed evidence, I form the hypothesis as non-directional:

Hypothesis 1: For Chinese cross-listed firms in the U.S., there is no difference in analyst forecast accuracy and dispersion between Chinese familiarity analysts (CFML) and non-Chinese familiarity analysts (NCFML)

RESEARCH METHODOLOGY

Following (Srinivasan et al. 2015), I identify foreign cross-listed firms using the variable "LOC" in Compustat. This variable shows the country of a firm's headquarters. I retain only foreign firms that are headquartered in China (LOC=CHN) and are listed on NYSE, NASDAQ, and AMEX from 2008 to 2015. These firms are merged with the I/B/E/S Recommendation file to collect analysts' last names and respective brokerage firms, which are used to discover analysts' LinkedIn information. Variables for forecast accuracy, dispersion, and information precision are calculated based on I/B/E/S Detail file. Data for all other variables are retrieved from Compustat and CRSP. Analyst forecast accuracy (*Accuracy*) is calculated as the opposite of forecast errors (-100 times forecast error, which is the absolute difference between actual EPS and the mean consensus EPS forecasts, scaled by the stock price of the prior year). Analyst forecast dispersion (*Dispersion*) is 100 times the standard deviation of forecasts, scaled by the stock price from the previous year. An analyst is classified as Chinese familiarity (CFML) if he/she meets one of the following criteria: 1.) the analyst has a Chinese last name, 2.) the analyst brokerage office/branch is located in China mainland, Hong Kong, or Taiwan, 3.) the analyst travels to China frequently, or 4.) the analyst's research is focused on Chinese/Asian firms or markets.

If an analyst does not meet any one of the four criteria, he/she is classified as NCFML. The criteria are based on assumptions that analysts will enjoy country/local informational advantage via the same culture/language (Du et al. 2017), the geographic proximity (Malloy 2005), or the focused research area. OLS regression models are used to test the hypothesis:

$$\begin{aligned} Accuracy (Dispersion) = & \beta_0 + \beta_1 CFML + \beta_2 Size + \beta_3 ROA + \beta_4 Sale_change + \beta_5 Volatility + \\ & \beta_6 Earn_change + \beta_7 Horizon + \beta_8 Loss + \beta_9 Big4 + \beta_{10} Coverage + Year Dummies + \\ & Industry Dummies + error term \end{aligned} \quad (1)$$

The main variable of interest is the dummy variable *CFML*, which equals one if the analyst is defined as with Chinese familiarity. Several additional control variables are included following prior studies (Bhushan 1989, Brennan and Hughes 1991, Lang and Lundholm 1996, Clement 1999, Barth et al. 2001, Leavy et al. 2011, Jiraporn et al. 2012, Du et al. 2017, Comiran and Siriviriyakul 2019). I also include year fixed effect and industry fixed effect to control for unobservable factors over the years and among different industries. All variables are defined in the Appendix. Table 1 shows the sample distribution by Year (Panel A) and Industry (Panel B). The observations are generally even over the years, but are concentrated on Service (SIC 7000-7999) and Manufacturing (SIC 2000-3999) industries.

Table 1: Sample Distribution by Year & Industry

Panel A			Panel B		
Year	Frequency	Percent	SIC Industry	Frequency	Percent
2008	70	12.028	2000-2999	56	9.622
2009	83	14.261	3000-3999	159	27.320
2010	89	15.292	4000-4999	31	5.327
2011	96	16.495	5000-5999	27	4.639
2012	86	14.777	6000-6999	37	6.357
2013	63	10.825	7000-7999	214	36.770
2014	53	9.107	8000-8999	58	9.9660
2015	42	7.217			
Total	582	100%	Total	582	100%

Table 1 presents the sample distribution by year (Panel A) and by industry based on SIC classification (Panel B) for the full sample with 582 firm-year observations from 2008 to 2015.

Table 2 displays descriptive statistics for the CFML group (Column 1), NCFML group (Column 2), and comparison (t-statistic) of the mean difference between these two groups (Column 3). The CFML group has significantly higher (lower) forecast accuracy (dispersion) relative to the NCFML group. In addition, the CFML group has lower ROA and more analysts' coverage (*coverage*).

Table2: Descriptive Statistics

Variable	Column 1				Column 2				Column 3
	Analysts with Chinese Familiarity (CFML)				Analysts without Chinese Familiarity (NCFML)				t-statistic for
	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev	Mean Difference
Accuracy	405	-2.867	-0.716	9.143	177	-5.100	-0.693	18.755	-1.93 *
Dispersion	405	2.315	0.889	4.832	177	4.489	0.733	18.763	2.17 **
Size	405	6.760	6.544	1.802	177	6.785	6.642	1.745	0.15
ROA	405	0.070	0.058	0.141	177	0.096	0.086	0.149	1.96 *
Sale_change	405	2.488	1.653	2.622	177	2.572	1.602	3.030	0.34
Volatility	405	0.166	0.153	0.073	177	0.174	0.164	0.073	1.26
Earn_change	405	-0.300	0.006	3.652	177	0.055	0.065	3.863	1.06
Horizon	405	4.861	4.905	0.404	177	4.899	4.920	0.434	1.02
Loss	405	0.242	0.000	0.429	177	0.215	0.000	0.412	-0.71
Big4	405	0.901	1.000	0.299	177	0.864	1.000	0.343	-1.31
Coverage	405	1.939	1.792	0.687	177	1.583	1.386	0.516	-6.17 ***

Table 2 displays the descriptive statistics for the CFML group (Column 1), NCFML group (Column 2), and comparison (t-statistic) between the two groups' means (Column 3). ***, **, * indicate significance at the 1, 5 and 10 percent levels respectively. All variables are defined in the Appendix.

Table 3 reports the Pearson correlation matrix of all variables. For brevity, I use *Var1-Var12* to refer to the following variables: *CFML*, *Accuracy*, *Dispersion*, *Size*, *ROA*, *Sale_change*, *Volatility*, *Earn_change*, *Horizon*, *Loss*, *Big4*, and *Coverage*. *Accuracy (Var2)* and *Dispersion (Var3)* are positively (negatively) correlated with *CFML (Var1)*, suggesting that analysts with Chinese familiarity issue more accurate (lower dispersion) forecasts.

Table 3: Pearson Correlation Matrix

	Var1	Var2	Var3	Var4	Var5	Var6	Var7	Var8	Var9	Var10	Var11	Var12
Var1	1											
Var2	0.0800 *	1										
Var3	-0.0899 **	-0.8487 ***	1									
Var4	-0.006	0.193 ***	-0.136 ***	1								
Var5	-0.081 *	0.3169 ***	-0.244 ***	0.3020 ***	1							
Var6	-0.014	0.1413 ***	-0.126 ***	0.3661 ***	0.4811 ***	1						
Var7	-0.052	-0.150 ***	0.070 *	-0.362 ***	-0.080 *	-0.051	1					
Var8	-0.044	0.036	0.001	0.071 *	0.136 ***	0.062	-0.086 **	1				
Var9	-0.042	-0.132 ***	0.105 **	-0.334 ***	-0.156 ***	-0.088 **	0.018	-0.055	1			
Var10	0.030	-0.328 ***	0.269 ***	-0.297 ***	-0.660 ***	0.183 ***	0.201 ***	-0.082 **	0.172 ***	1		
Var11	0.054	-0.044	0.059	0.241 ***	-0.082 **	0.047	-0.101 **	-0.005	0.031	0.077 *	1	
Var12	0.248 ***	0.040	0.020	0.242 ***	0.218 ***	0.287 ***	-0.033	-0.013	-0.027	-0.033	0.223 ***	1

Table 3 reports the Pearson correlation matrix of all variables. Var1-Var12 refer to the following variables: CFML, Accuracy, Dispersion, Size, ROA, Sale_change, Volatility, Earn_change, Horizon, Loss, Big4, and Coverage. ***, **, * indicate significance at the 1, 5 and 10 percent levels respectively. All variables are defined in the Appendix.

RESULTS AND DISCUSSION

Table 4 presents the main results for regression tests. Model 1 shows the results for analyst forecast accuracy (*Accuracy*). The coefficient on *CFML* is positive and significant at the 10% level, indicating that, on average, analysts with Chinese familiarity issue more accurate forecasts. As discussed earlier, analysts with Chinese familiarity usually have an information advantage via the same culture/language, the geographic proximity, or the focused research area. Each factor can benefit analysts' forecast accuracy. The finding is consistent with prior studies using U.S. domestic analysts as the sample, but differs from Comiran and Siriviriyakyl (2019) study of cross-listed firms. It also supports Du et al.'s (2017) findings that analysts with Chinese culture provide more accurate forecasts. In addition, the results indicate that non-cultural factors, as well as the cultural factor, have a positive effect on analysts' forecast accuracy. For the control variables, the results show that on average, firms with larger size (*Size*), higher profitability (*ROA*), lower sales growth (*Sale_change*), and no loss (*Loss*) have higher forecast accuracy.

Model 2 shows the test results for analyst forecast dispersion (*Dispersion*). Analyst forecast dispersion is widely used as a proxy of analysts' uncertainty and disagreement (Barron and Stuerke 1998). The coefficient on *CFML* is significantly negative at the 1% level. Analysts with Chinese familiarity share the same cultural background and speak the same language. They also have more private information about Chinese cross-listed firms. As their offices are located close to the China market, they travel to China frequently, or their research is focused on China. Therefore, Chinese familiarity can decrease analysts' uncertainty to Chinese cross-listed firms and increase agreement among these analysts, which is reflected

in lower forecast dispersion. Results also suggest that firms with a smaller size (*Size*), loss (*Loss*), and more coverage (*Coverage*) have higher forecast dispersion.

Table 4: Regression Results

	Model 1 (<i>Accuracy</i>)	Model 2 (<i>Dispersion</i>)
Variable	Coefficient	Coefficient
<i>CFML</i>	2.201* (1.817)	-2.898*** (-2.676)
<i>Size</i>	1.910*** (2.822)	-1.866*** (-3.082)
<i>ROA</i>	12.180** (2.051)	-3.092 (-0.582)
<i>Sale_change</i>	-0.607** (-2.281)	0.306 (1.287)
<i>Volatility</i>	-0.058 (-0.007)	-10.871 (-1.493)
<i>Earn_change</i>	-0.094 (-0.691)	0.166 (1.360)
<i>Horizon</i>	-1.961 (-1.441)	0.925 (0.760)
<i>Loss</i>	-4.788*** (-2.825)	4.376*** (2.887)
<i>Big4</i>	-1.963 (-1.016)	1.345 (0.778)
<i>Coverage</i>	-1.425 (-1.396)	2.485*** (2.722)
<i>Constant</i>	-2.807 (-0.316)	5.245 (0.659)
Year Dummies	YES	YES
Industry Dummies	YES	YES
Observations	582	582
R-squared	0.246	0.193
Adj R-squared	0.186	0.129

Table 4 presents the results for regression model (1), which tests the effect of Chinses familiarity (*CFML*) on analysts forecast accuracy (Model 1) and dispersion (Model 2). The estimated equations equals: $Accuracy (Dispersion) = \beta_0 + \beta_1 CFML + \beta_2 Size + \beta_3 ROA + \beta_4 Sale_change + \beta_5 Volatility + \beta_6 Earn_change + \beta_7 Horizon + \beta_8 Loss + \beta_9 Big4 + \beta_{10} Coverage + Year\ Dummies + Industry\ Dummies + error\ term$ T-statistics are shown in parentheses. ***, **, * indicate significance at the 1, 5 and 10 percent levels respectively. All variables are defined in the Appendix.

Regression results suggest that analysts with Chinese familiarity outperform analysts without Chinese familiarity by issuing more accurate and less dispersed forecasts for Chinese cross-listed firms. This superior performance can be attributed to either more precise public information or more precise private information. Public information refers to the information that is available to all analysts, while private information only belongs to that specific analyst by his/her private information acquisition. Previous studies have shown that “it is not possible to unambiguously characterize changes in the precision of common information and idiosyncratic information based on measures such as dispersion or squared error in the mean forecast” (Venkataraman 2001, page 2). To better understand the source for the observed differences between CFML analysts and NCFML analysts, I test analysts’ total, public and private information precision with Barron et al. (1998) model (BKLS model) which is widely used by other studies (Byard et al. 2011, Kim and Shi 2012). Information precision variables are measured as follows:

$$Public\ information\ precision\ (Public) = \frac{SE - \frac{D}{N}}{\left[\left(1 - \frac{1}{N}\right)D + SE\right]^2}$$

$$Private\ information\ precision\ (Private) = \frac{D}{\left[\left(1 - \frac{1}{N}\right)D + SE\right]^2}$$

$$Total\ information\ precision\ (Total) = Public + Private$$

Where D is the variance of analysts' earnings forecasts, SE is the squared error in mean forecasts, and N is the number of earnings forecasts.

The results are presented in Table 5. Analysts with Chinese familiarity have significantly more accurate total information precision (*Total*), reflected in the positive coefficient on the variable “*CFML*” in Model 1. I then test the public and private information separately. The results suggest that better total precision for *CFML* analysts is achieved by more accurate private information precision rather than differences in public information precision. While the coefficient on *CFML* is significantly negative at the 1% level in the private information precision test (Model 3), it is not significant when testing public information precision (Model 2). The findings suggest that analysts with Chinese familiarity are enabled to search and gather important private information, which might come from their “reading between the lines” or personal communication with management. In contrast, Chinese familiarity does not play a critical role for analysts’ public information precision since all analysts receive the same public disclosures or reports.

Table 5: Additional Analysis

Variable	Model 1 (<i>Total</i>) Coefficient	Model 2 (<i>Public</i>) Coefficient	Model 3 (<i>Private</i>) Coefficient
<i>CFML</i>	0.440* (1.853)	0.189 (0.399)	1.809*** (4.014)
<i>Size</i>	-0.189 (-1.466)	-0.533** (-2.083)	-0.134 (-0.548)
<i>ROA</i>	1.479 (1.335)	-0.704 (-0.320)	3.931* (1.871)
<i>Sale_change</i>	0.004 (0.088)	0.168* (1.691)	0.024 (0.253)
<i>Volatility</i>	-1.244 (-0.792)	-5.005 (-1.603)	-4.521 (-1.517)
<i>Earn_change</i>	-0.030 (-1.124)	-0.021 (-0.390)	-0.033 (-0.656)
<i>Horizon</i>	-1.161*** (-4.290)	-1.372** (-2.552)	-0.029 (-0.056)
<i>Loss</i>	-1.370*** (-4.340)	-1.408** (-2.246)	-1.300** (-2.173)
<i>Big4</i>	-0.540 (-1.461)	2.531*** (3.446)	0.274 (0.392)
<i>Coverage</i>	-1.011*** (-5.159)	-0.287 (-0.736)	-0.054 (-0.144)
<i>Constant</i>	10.833*** (6.369)	11.996*** (3.550)	1.648 (0.511)
Year Dummies	YES	YES	YES
Industry Dummies	YES	YES	YES
Observations	435	435	435
R-squared	0.447	0.202	0.178
Adj R-squared	0.389	0.118	0.092

Table 5 presents the results of the test that examines the effect of Chinese familiarity (*CFML*) on analysts forecast information precision. Model 1 (Model 2/ Model 3) shows result for Total (Public/ Private) information precision. The estimated model equals: $Precision = \beta_0 + \beta_1 CFML + \beta_2 Size + \beta_3 ROA + \beta_4 Sale_change + \beta_5 Volatility + \beta_6 Earn_change + \beta_7 Horizon + \beta_8 Loss + \beta_9 Big4 + \beta_{10} Coverage + Year\ Dummies + Industry\ Dummies + error\ term$. T -statistics are shown in parentheses. ***, **, * indicate significance at the 1, 5 and 10 percent levels respectively. All variables are defined in the Appendix.

CONCLUSION

Prior studies using U.S. samples have generally agreed that local analysts outperform their nonlocal counterparts due to an information advantage or local familiarity. However, will this phenomenon still hold for foreign firms cross-listed in the U.S.? While Du et al. (2017) show that analysts with Chinese ethnic origin share the same cultural background with Chinese cross-listed firms and therefore issue more accurate forecasts, Comiran and Siriviriyakyl (2019) find conflicting evidence that nonlocal analysts provide more accurate forecasts than local analysts for cross-listed firms from 41 foreign countries. Given the inconclusive results, I examine whether analysts with Chinese familiarity (CFML) behave differently from analysts without Chinese familiarity (NCFML) using a hand-collected sample of Chinese cross-listed firms from 2008 to 2015. An analyst is classified as with CFML if he/she meets one of the following criteria: the analyst has a Chinese last name; or the analyst's brokerage office/branch is located in China mainland, Hong Kong or Taiwan; or the analyst travels to China frequently; or the analyst's research is focused on Chinese or Asian firms/markets. The broader definition includes not only the cultural factor as used by Du et al. (2017), but also non-cultural factors as used by geographic proximity studies (Malloy 2005).

Results indicate that analysts with Chinese familiarity have higher accuracy forecasts with lower dispersion. The difference reflected in forecast accuracy and forecast dispersion between analysts with and without Chinese familiarity can be attributed to analysts' public information precision or analysts' private information precision. Using Barron et al. (1998) model (BKLS model), I measure the unobservable information precision with observable forecast accuracy and dispersion. Additional analysis reveals that analysts' Chinese familiarity advantage is mainly driven by analysts' higher private information precision rather than by the public information precision. Overall, the results indicate that analysts with Chinese familiarity can acquire and collect private information of Chinese cross-listed firms by sharing the same culture/language, locating close to firms' headquarters, visiting firms frequently, or focusing on the China market. Each of these activities benefits analysts with Chinese familiarity to possess more accurate private information, which leads to more accurate forecasts with lower dispersion.

The findings from this study are a useful resource for investors who are interested in trading in Chinese cross-listed firms and stocks. As noted by Hirst et al. (1995), investors perceive analysts' services as one of the most noteworthy tools for investment decisions (SRI International, 1987). Analysts who act as the middleman between firms and investors process information within their respective specialties and then transform that information into earnings forecasts. When investors trade in Chinese cross-listed firms, they usually face severe information asymmetry due to language barriers or cultural differences. In this situation, investors might rely more on analysts' services. Analysts with Chinese familiarity have an advantage when it comes to Chinese cross-listed firms and information, and they have the upper hand at extracting firms' private information. With firm-specific private information, these analysts can outperform their counterparts without Chinese familiarity by issuing forecasts with higher accuracy, lower dispersion, and better information precision. All these favorable properties can benefit investors by making better investment decisions.

One limitation of this study is that it uses analysts' last names as an indicator of Chinese familiarity. This method can be problematic, especially under two circumstances. Firstly, some female analysts may change their last names upon marriage, so use of last names falls short of expectations. Secondly, some Chinese immigrants, such as the second or third generation, although may still carry their Chinese last names, they might rarely speak Mandarin or maintain even their Chinese cultural heritage. They are usually Chinese in name only. When they become analysts, they are less likely to demonstrate Chinese familiarity. Future research should explore other proxies to measure Chinese familiarity more accurately.

APPENDIX

All variables are defined as follows:

Accuracy = $-100 * [(Actual\ EPS - Consensus\ EPS) / Stock\ price\ of\ prior\ year]$

Dispersion = $100 * Standard\ deviation\ accrual\ EPS / Stock\ price\ of\ prior\ year$

Public = natural logarithm of public information precision calculated with BKLS (1998) model

Private = natural logarithm of private information precision calculated with BKLS (1998) model

Total = sum of public information precision and private information precision

Size = market value of the firm

ROA = net income before extraordinary items / total assets

Sale change = change of sales from prior year to current year

Volatility = standard deviation of monthly stock returns

Earn change = change of earnings from prior year to current year

Horizon = forecast horizon

Loss = dummy variable equals to one if net income is negative, and zero otherwise

Big4 = dummy variable equals to one if firms' financial statements are audited by Big 4 CPA firms, and zero otherwise

Coverage = number of analysts following the firm

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BIOGRAPHY

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AN HISTORY OF US TAX CODE COMPLEXITY WITHIN COMPUTER-BASED RETURN PREPARATION

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ABSTRACT

The current income tax system in the United States is extraordinarily complex. Efforts like the tax law changes in 2017 have done little to lessen the overall compliance burden. There are a variety of reasons for this – some intentional and some accidental. This paper examines one of the accidental reasons - the history of growing computer technology over the past 50 years and its effects on increasing tax complexity in the US. A “black box” phenomenon of tax preparation that exists today has grown from an inconspicuous start by merely desiring arithmetic on the tax forms to be accurate. Decades later, it is easy to conclude that absent this enormous growth in computer technology, US lawmakers could not possibly have passed and continue to pass laws into such a convoluted tax system. Whether it is optimal for a tax system to be so “disguised” from the taxpayer is debatable, particularly with other parties, like the Internal Revenue Service and tax preparation companies like Intuit having so much now invested in this electronic process.

JEL: M41, M42, M48

KEYWORDS: Computer, Tax Preparation, Tax Complexity

INTRODUCTION

There is no doubt the US tax code is incredibly complicated. There are numerous causes for this - from the complexity of business operations in the 21st century to tax incentives and disincentives created throughout the Code since the early 1920s. This paper examines another possibility – the advances in computer technology over the past 50 years has limited the amount of taxpayer “pushback” from layers of new tax laws simply because the taxpayer has no obligation to truly understand the tax system. In addition, the increase in tax complexity and computerized tax preparation seemingly has been particularly acute in the past 30 years. While electronic filing did not exist in 1984, in 2016 more than 90% of all individual Form 1040 are electronically filed (IRS, 2016). Similarly in 1984, the CCH Federal Tax Reporter contained 26,300 pages of tax law. By 2014, the US tax laws and regulations in the same CCH Federal Tax Reporter totaled 74,608 pages (Burton and Karlinsky, 2016).

The difference in tax preparation for individuals in the United States over the past half century is dramatic. In the early 1960s, nearly all tax returns (Form 1040 and its schedules) were prepared “by hand,” using a slide rule for complex calculations. Some tax preparers, in an effort to make their work look “more professional,” had their tax returns typed by a secretary and usually copied using carbon paper. Today, most returns are electronically prepared and filed and paper copies can be printed at home or merely saved on a computer’s hard drive or cloud. This ability to make tax preparation progressively easier through the use of advances in computer technology has been offset by lawmakers’ awareness of the easy of tax preparations and their desire to a) “hide” the true tax rate paid by many taxpayers and b) encourage or discourage more and more narrowly defined activities.

Increasing the computational complexity of tax returns – creating a “black box” for many taxpayers – is not generally considered good tax policy, though some stakeholders might benefit. First, it undermines the legitimacy of the system, allowing uncertainty over whether the tax system has horizontal and vertical equity. Second, in both the cases of phase outs and the alternative minimum tax (AMT), the taxpayer could be unaware of their current marginal tax rate, which means they cannot make proper working or investment decisions. On the other hand, while not optimal, concealing the tax liability or tax rate might reduce resistance to the tax. While hiding a tax liability is generally considered not good, some researchers have examined both the negative and positive effects of the black box tax preparation phenomenon, as well as those entities (IRS, some lawmakers, tax preparation software companies) that benefit from this current situation. In this paper, some of those will be reviewed. This paper also moves a step further and asks the question – “Was the resulting black box intentional?” – by examining some of the history of electronic tax preparation. The short answer is no – at least not from its inception in the early-1960s to the mid-1980s. The IRS did not become interested in tax preparers’ electronic version of the Form 1040 until sometime in the 1980s, over two decades after its beginning. The IRS interest did not stem from a desire to hide a true tax rate either – it was merely to transfer the information electronically to its own computers and eliminate the necessity of “keying-in” information from the paper version of Form 1040. So began the campaign to encourage tax preparers to begin the “ramp-up” of electronic filing. Today, more than 90% of all tax returns in the US are electronically filed (IRS, 2016).

This paper is outlined as follows. Section two reviews the literature in this area that addresses some of the positive and negative consequences of not understanding how a taxpayer liability was calculated. Section three demonstrates the increases in tax complexity, particularly in the past 20 years, which coincides with the dramatic increases in the ability of computer technology to be widely available and easy to use for everyone. Section four discusses the history of computer prepared returns, with each decade marked by wider spread usage, including the availability of high speed printers to reproduce IRS forms, first at the accounting firm level, then, within the past 20 years at the individual level, and then nearly universal electronic filing. Section four also addresses the Internal Revenue Service’s push to see all returns electronically filed and how this might be the first “organized” push towards the “black box” of tax preparation. Section five offers a path forward which also considers what other countries have done to reduce the tax compliance burden and the pushback that tax preparation software companies are now engaged in politically. Section six concludes.

LITERATURE REVIEW

There are both advantages and disadvantages to society and to lawmakers of the “black box” of tax preparation created by computer technology. It could be argued that hiding a true tax liability from a taxpayer’s knowledge could be both a help and a hindrance to lawmakers. However, it does not appear, when reviewing the history of computer technology in tax preparation, that helping or hindering was ever considered in encouraging its initial growth – it was merely an unintended consequence. An advantage to lawmakers is an inability by the taxpayer to realize their true tax liability (or marginal tax rate) on the next dollar earned until long after the tax year has been completed (if ever). This idea of “confusing and confounding” taxpayers is certainly not a new idea, and what that did not begin with the advancing computer technology. As an example, in the past lawmakers at the state level have enthusiastically endorsed the idea of tax exportation. For instance, consider imposing a state sales or use tax on rental cars. Most individuals are not from that state, so the money is considered collected from individuals who are not able to vote against lawmakers who voted for the tax. Eventually, however, people from their state who rent a car in another state face the tax as well, but likely will not connect payment of a tax to another state with their own state’s lawmakers. Taxpayers are also faced with a number of different taxes – federal income tax, state income tax, state sales tax, property taxes. It has long been assumed that taxing individuals at a variety of different levels confused them – to the point they do not truly understand the dollar or percentage amount of tax they

are paying, which again is an advantage to the lawmakers created and imposing these taxes since their culpability may be reduced.

The lack of transparency for federal individual income tax helps lawmakers in a number of other ways, besides reducing constituent pushback. Disagreements about whether their money has been spent, including redistribution of wealth from rich to poor, are highly debatable and controversial topics (Fennell and Fennell, 2003). This idea of “fiscal illusion” – not being able to tell your true tax rate – either average or marginal – is well documented in the literature and it considered a detriment to tax compliance. Afonso (2014) outlines some of the reasons – it is easier for taxpayers to accept a tax if they think it provides them with more benefit than a murky and indeterminable cost. It is also difficult for taxpayer to plan to work more (or less) if they do not understand their true tax rate (or true cost of working) until after the work is completed (which is after the end of the tax year but before the tax return is completed and submitted).

The “black box” phenomenon of tax preparation also makes it difficult to impose regulations on the creators of the software, an advantage to the software makes but a negative outcome for the taxpaying public. Soled and Thomas (2017) point out that tax preparation software, like tax preparers, are a vital intermediary between the IRS and the taxpayer. Despite this connection, the IRS does not “test” the computerized software of these vendors every year, including the “audit defense” system, which “estimates” the likelihood of an audit. Furthermore, as discussed by Gunter (2016), many of these programs concentrate on maximizing deductible expenses, but do not advocate any maximization of revenue (not surprisingly). The result is a fundamentally biased system tilted towards underreporting taxable income.

A disadvantage to the “Black Box Phenomenon” is the increase in penalties from non-compliance with tax laws which the taxpayer may only be minimally at fault. This “Turbo Tax Defense” strategy has been brought on most ignobly by the former Secretary of the US Department of Treasury, Timothy Geithner. Secretary Geithner, during his confirmation process in 2009, was discovered to have not reported certain taxable income from the early part of the decade. His defense was “Turbo Tax made me do it!” Despite the statute of limitations already closing on the prior returns, Secretary Geithner paid the back taxes (McAuliff, 2009). The problem of the “Turbo Tax Defense” is certainly not limited to just the former Secretary of the US Treasury though. Mock and Shurtz (2014) wrote extensively on the logistics and strategies for using this defense. Generally, the defense cannot be used to reduce the tax liability permanently and erroneously, but can be used to waive penalties and interest that would have been owed to the IRS. These fines include negligence penalties since the taxpayer, while using a software program, made a reasonable attempt at computing his correct tax. Simply put, it was not the taxpayer’s fault the program “did not ask the correct questions” (Brink and Lee, 2015).

A non-tax law related issue, but still one very important within the computer tax preparation area, is the potential to mislead consumers about the actual cost to them of the preparation and filing. Tax preparation software is sometimes offered “for free,” including the IRS “free-filing” program. Not stated is the cost of a state tax return, or the “upload” of other services, such as forms required for reporting more complex financial transactions, or “audit protection.” These marketing practices certainly increases the demand for the software, but leave taxpayers confused and potentially less connected to how their tax liability was computed, not to mention how the fee for the tax software was computed either (Ventry, 2010). This overall disadvantage to society is that society does not realize their portion of the cost of government, and hence any “civic virtue,” much like voting in an election, is lost. Mehrotra (2015) argues that researchers of taxation and development have long recognized the critical role that an effective tax system plays into a democracy. Zelenak (2007) points this out by arguing that “the income tax requirements can have the “civic virtue” of making taxpayers conscious of the distribution of the costs of government, but that that benefit is lost if taxpayers perceive the income tax:

“as a black box, producing income tax filing requirement can have the “civic virtue” of making taxpayers conscious of the distribution of the costs of government, but that that benefit is lost if taxpayers perceive the income tax “as a black box, producing income tax liabilities through the use of incomprehensible rules that taxpayers have no reason to assume are fair...” (p.4)

Goolsbee (2003) also addresses this point and the idea of a disconnect between taxpayers and the true amount of taxes (or tax rate) they are paying by also pointing out that any economics incentives or disincentives are lost in a “black box” situation:

“If people do not understand the incentives embodied in the system, they will not respond to them. On the one hand, this makes the system efficient and nondistortionary... On the other hand, the ability to influence behavior was exactly the policymakers’ point in creating the complex tax system to begin with. In the long run that purpose would be lost.”

While fiscal illusion has been well documented in the literature, and other authors, like Zelenak and Goolsbee have made references to the “TurboTax” phenomenon, relatively little insight has been provided on how the computer tax preparation business began, or whether or when anyone realized that such a strong disconnection would be created between the taxpayer and his liability computation. In the next section, a brief history is discussed, one which shows that the illusion/disconnection phenomenon was merely an unintended consequence.

Growth of Tax Complexity

Since the passage of the 16th Amendment to the US Constitution in 1913 and the enactment of income tax laws in the US that same year, there have been complaints about the difficulties in understanding the Code. In 1914, with only 40 pages of tax law, there were already calls were already made for simplification (Rearick, 1914) (p. 25):

“It will hardly be denied that the federal income tax needs simplification. Its complexity is its distinguishing characteristic. To begin with the language in which the Act is couched is involved and its rhetoric bewildering.... In addition, it leaves a great deal to the imagination. The definition of income is in the most general terms.”

By 1916, the Bureau of Internal Revenue was already asking for a total overhaul of the US tax system, beginning with the replacement of net income with the seemingly easier to compute gross income (Commissioner of Internal Revenue, 1916) (p. 7):

“The Bureau has heretofore recommended the shifting of the requirements of individual returns on a net income basis to that of gross income. ... on the present basis of net income....there exists the anomalous condition that taxpayers are allowed in some degree to pass upon their own liability for a tax based on their own interpretation of the laws...”

For the 80 years after the tax code was first passed in 1913 – through 1993 - there were about 400 forms. In the next ten years, from 1993 through 2002, another 120 forms were created by the IRS – a 30% increase in number. A report to Congress (Taxpayer Advocate Report, 2010) called tax complexity the number one problem facing taxpayers:

In the last 10 years there have been approximately 4,428 tax code changes including an estimated 579 changes in 2010 alone. As of an analysis in early 2010, the tax code contained 3.8 million words, which is almost triple the 1.4 million words the tax code contained in 2001.

Simultaneously the number of returns electronically filed went from nearly zero in the late 1980s to more than 90% in 2016 (IRS, 2016). What caused all of these layers and layers of complexity in the tax system? And, more importantly, why do taxpayers (who are also mostly eligible voters) not complain more? The first question is easy to answer – for example, lawmakers creating a) more economic incentives or disincentives for certain behavior, b) clearer and more narrowly defined rules and regulations, and c) the growth of businesses across international borders. The answer to the second question – why do not voters complain more - has a multi-faceted reply, and a part of the answer lies in the ease with which a tax return can be prepared today relative to the 1980s, and certainly to the 1960s. A significant part of the complexity problem is the use of phase outs – an attempt by lawmakers to incentivize the tax system and also “disguise” the true tax liability. Phase outs mean that certain items of exclusions of income or deductions (or credits) will be less and less available to a taxpayer as their income rises. This means that not only does the taxpayer pay a marginal rate on the last dollar earned, but also “gains” more taxable income than the actual dollar he/she made, thus resulting in even more tax. The end result is a marginal tax rate even higher than what was previously thought. Take just one example of a phase out for a taxpayer with children. In the 2017 tax year, every child that a taxpayer supports entitles the taxpayer to an exemption amount and a subsequent deduction on the tax return (which probably will result in a reduction in tax owed).

He/she may also be allowed a credit for the child’s care while the taxpayer is at work. In addition, the same child might also entitle the taxpayer to a child credit – an additional \$1000 in reduction in the overall tax liability – assuming the taxpayer is below a certain level of adjusted gross income. To compound complexity even further, in 2018, the law changes, so that the taxpayer is no longer allowed a deduction, but can be given a tax credit (up to \$2000 per child) – but only if the taxpayer’s income is below a new level. Finally, if the taxpayer’s adjusted gross income is low, (he/she/they) are entitled to another tax credit called the earned income credit – which may actually result in a negative tax rate – or an amount of “refund” that was never even paid to the IRS. As income rises, the earned income credit is phased out, then the child care credit then the child credit is phased out. Finally, the child’s exemption amount is phased out. The ability of the taxpayer (or even a taxpayer’s preparer) to remember each phase out is problematic, not to mention the switching of entire new sections of the tax code, particularly since nearly every phase out upper and lower limits change each year when adjusted for inflation.

Growth of Computer Based Tax Preparation

Examining the history of tax preparation in the US is an examination of the “rule of unintended consequences.” What seemed like a rather innocuous attempt in the 1960s to make the return arithmetically accurate soon became an idea to make the tax return process quicker (and therefore more profitable) by the 1970s. The decade of the 1980s saw the addition of the Internal Revenue Service’s incentives to receive a completed tax return in already in computerized data format, thereby eliminated the need for government workers to input the information from a tax return into a central database. By the start of the 21st century, computer memory power and the internet eventually allowed nearly every individual tax return to be done online and sent to the IRS electronically.

Examining the whole evolution of computer tax preparation from the 1960s to today indicates that nearly the entire journey was one of “stops and starts.” The intentions seemed rather innocuous, at least until the IRS started its involvement in the process around the mid-1980s. Up until that time, CPAs partnered with computer programmers and system hardware designers in trying to figure out how to make the tax return prep business easier for tax preparers, as well as eliminating errors and putting out a more professional looking tax return to the client. The following is a brief history of that interaction. Today a tax return can be prepared using a tax preparation software, available for as little as \$10 (or even free for the very simple returns). From 50 years ago, this is an astonishing technological achievement. For much of those 50 years however, usually only CPA firms or tax preparation franchises (HR Block, Jackson Hewitt, etc.) used the computer at all to complete tax returns. At first, it was simply to eliminate mathematical errors by the

preparer (particularly on complex returns with multiple forms) and to make the return look more “professional.” Another advantage was also quickly discovered by tax professionals – a “pro forma” data collection sheet could also be given to the client as a “reminder” of the data that was needed for the current year’s return, based on what was submitted in the prior year (Rea, 1969).

Before the 1960s, almost every tax return was prepared “by hand” – each line filled out by taxpayers or their preparers. If the tax preparer wanted a more “professional appearance,” the dollar amounts and other personal information could be typed into a Form 1040 and the appropriate schedules. In 1961, the Internal Revenue Service first began entering taxpayer information, received by employers and banks, into electronic data processing machines. This gave the ability for the IRS then to “cross-check” the reported amounts of the taxpayer with relative ease (rather than done “by hand” and through a physical audit) (Smith, 1961). The technology to do this was quickly transfer over to a company named Computax, which became the first leading computer preparation company by 1964. In that year, more than 100,000 returns were processed by using Computax. Not everything worked as planned, however. There were complaints that the systems sometime did not prepare all of the forms that were required, and the “turnaround” time was less than optimal, particularly as the calendar neared the April 15th deadline (Stern, 1965).

The “system” of tax preparation would be as follows. Tax preparers would hand write onto input sheets for each items of revenue or expense on the 1040. The input sheets would then be transported to a “service bureau” which would type the data into a mainframe, which would compute the tax return and print out a finished 1040, usually within a day or two. It is interesting to note how slowly this process began – usually limited by available computer technology of memory space and speed of computation, and later on by printer speed. Many small firms provided the technology (which was usually not the accounting firms themselves). They either quickly became larger (or failed), or merger with other firms between the mid-1960s and the early 1980s. The system was plagued over more than a decades by problems including limited number of state returns that could be processed, and days (or weeks) lag in “turn-around” time.

In the decade of the 1970s the computer tax preparation business grew but not without problems – and was certainly limited to very few taxpayers. Pacter (1971) compares the services offered by 14 different service bureaus - less than 1,000,000 returns in total were actually processed. Six pages of charts by Pacter include the price of each service, the level of services provided and the returns and schedules each company can provide. Some companies could provide all or most forms for the IRS, other companies could also provide forms for certain states (but not all). By 1973, Unitax was advertising that it could process US federal returns and state returns in six states Unitax California, Oregon, Arizona, Illinois, Indiana and Michigan. That also highlighted a problem that took years to overcome – not every service bureau was able to do state tax returns, and in fact, most could only do tax returns for five to nine states. Consequently, clients who worked in many states would continue to need their tax preparers to complete some state returns manually (Anonymous 1, 1973). These “stops-and-starts” of computer technology continued throughout the 1970s. By the mid-1970, Dynatax reported that it had located its operations to 20 different states, according to *The Journal of Accountancy* (Anonymous 2, 1974).

By 1975, there were three ways tax returns could be done according to Kanter (1975). First, the batch system where the accountant prepares the returns on input sheets and processed by a tax service bureau and mailed by to the accountant. Second, the accountant could buy or lease a terminal and input the tax information in office, and then returns could be printed by the service bureau and mailed back to the accountant. While many firms were now offering the services for form 1040 and schedules, only a few companies could do the necessary forms for corporations, partnerships and trusts. By the end of the decade of the 1970s, nearly all large CPA firms, as well as many smaller ones, prepared at least some of their returns using the input system. In 1979, 75 percent of firms surveyed indicated they use a service bureau. The industry consolidation had gone further with three or four tax preparation firms dominating the industry and moving closer and closer to being able to provide service in all 50 states. (Frotman, 1979)

Service bureaus continued to be used by many CPAs firms during the 1980s. Typically, the arrangement is as follows. The CPA would summarize the client data on input forms (which somewhat resembled the actual IRS form) and then submit the input form to a bureau. The bureau would convert the input forms to machine-readable data and process the return, sending back to the client the actual completed IRS forms. Usually a charge for the initial setup plus any subsequent changes made by the CPA (who passed on the charge to the client). The advantage of this system was that the forms were professional looking (when using a laser printer) and many errors could be “caught” by the computer program that a less-experienced CPA might miss. The bureau could also offer storage data offset, and be able to “format” the subsequent year’s return with recurring data (names, social security number, employer, etc.) The formatted data could also be used for a “questionnaire” sent to the client at the start of the tax season. The questionnaire could be useful to remind the client of transactions which took place during the prior year (like a list of previously used charities). The biggest disadvantage to the service bureau model was lack of control and ability by the CPA to guarantee the completion of a tax return on a particular day (and in fact, the closer to April 15 the submission of the return, the longer the “turnaround” might take). (Waters, 1992)

As the tax preparer’s usage of service bureaus and its laser printing technology became more dominant, the IRS began to notice, probably through the paper submissions of IRS forms that were laser printed in black-and-white, instead of the usually light-blue Form 1040. This was probably the first “encouragement” the IRS, or the US government gave to preparing tax returns using computer technology – after nearly 20 years of experimentation, failure and success of many small and large software companies. Because of this IRS recognition of a large number of computer prepared returns, the IRS began the process of submission of data on the returns online (instead of paper). In 1984, the IRS began drafting procedures on direct filing, with the goal of total online submission of forms by the early 1990s. (Malanga, 1984). In the early 1990s, the reduction in cost of both the tax return programs and computer memory and storage allowed many CPA firms to bring the technology “in house” on their own Local Area Networks – or LANs. This new system allowed the CPA to bypass the day (or more) of turnaround time that a service bureau might require. The tax information could be inputted directly into the computer, then information could be added, deleted or modified without the “back and forth” exchange with an external service bureau.

While the ease of the “in house” technology was paramount, the service bureau still offered at least some advantages in certain cases until the mid-1990s. The service bureau’s ability to process any form from any state was important until the storage capacity of the smaller in-house computers could rival the large servers. By the mid-1990s, though, the in-house LAN systems had enough memory and was fast enough to handle any tax return, and the service bureaus became extinct. By the late 1990s, the computerized tax return preparation process became widespread with not just CPA firms, but also individuals who prepared their own returns via a computer. This increase also coincided with the explosion in tax complexity as well. In 1993, 41 percent of all individual tax returns were done the “old fashion” way (pencil and IRS blue-and-white forms), but by 2003 it was only 13 percent. (Toder, 2005). This reduction was caused not only by paid preparers but also individuals, who by 2005 were using tax software at more than 30 percent of all tax returns. With the intention of making the programs more convenient, many programs also had tax law reference guides, IRS instructions and special interactive worksheets embedded within the software (Waters, 1992). Eventually this led to the current process whereby 90% or more of all individual returns are submitted online, augmented by software programs easily uploaded on personal computers via wireless systems (IRS, 2016).

A PATH FORWARD

The evolution of the history of the today’s black box of tax preparer extends over 50 years, and finding a way to unwind taxpayers and lawmaker reliance on it may not be possible, or even desirable. Of course, the ability to file electronically has its advantages, and these should not go away – accuracy of

computations, immediate receipt by the IRS of forms, quick turnaround times for refunds. Much can be done to reduce the reliance on the “black box phenomenon.”

The disconnect now between laws and computations required for many tax returns and the understanding the “citizen-taxpayer” has of the process cannot be ignored. In addition, the lack of regulations imposed on tax software firms, the failure of the US government to clearly and simply defined taxpayers penalties and expectations using tax software are growing dilemmas. First, consider the disconnect between For decades now, various researchers have suggested reducing exemptions and deductions or relying on more visible tax instruments, such as earmarking a portion of taxes paid to various services (Buchanan, 1963, for an early history). Mandating that various levels of government can only use certain sets of taxation for their purposes (income or sales or property or excise) would make the tax system more understandable (Afonso, 2014). In many other countries, tax returns can be prepared by the government, and given to the taxpayer merely for “approval.” Countries like Denmark, Sweden, Spain, Chile and Estonia already pre-populate tax returns for their citizens based on government collected data from other entities. In other countries, like Japan and the United Kingdom, the vast majority of people do not have to file tax returns at all. (PWC, 2014). The idea that the US government could pre-populate many returns and merely have the taxpayer “approve” it is certainly not a new idea (Roskam, 2012). At this point in the computerized tax preparation evolution, considerable pushback will be provided by the companies that offer such services. Spross (2017) points out that the tax preparation business made \$12 billion in 2016 and has no incentive to see less reliance on its services. In fact, Intuit, the maker of Turbo Tax, paid \$1.7 million in lobbying expenses between 2001 and 2009 and \$2 million in political campaign contributions with the intention of keeping the status quo of computerized tax preparation - if not growing it (York, 2009). Given wide ranging “preference” of its constituents for some tax breaks, deep lobbying efforts by tax preparation companies and belief by some the government should not both calculate and impose an income tax, a more modest possibility was suggested by Zelenak (2012) (p. 119):

“Congress’s.... goal should be a set of income tax rules under which anyone armed with basic arithmetical skills and a calculator... could easily prepare his or her own tax return. This should be the goal not because the taxpayer will or should return to pencil-and-paper return preparation, but because adhering to this standard ensures tax system transparency...”

Unfortunately, Zelenak idea of Congress’ goal ignores the 15 to 20 million sole proprietors, landlords and farmers that each year that need to file a Schedule C, E or F. It would be impossible to have the US government prepopulate a tax return for them. On the other hand, though the goal for the entire 145 to 150 million individual tax returns are not possible, at least some percentage, perhaps 90%, could meet this rule? An example of this is the recently passed income tax law in the United States in December 2017— increasing the number of taxpayers who would not need to itemize deductions, from around 65% to almost 90%. Ultimately one solution will not change all tax returns, but a solution could move towards a near 100% resolution over time. In addition to prepopulated returns for most taxpayers, the IRS could also move much more proactively to make tax laws less confusing. One suggestion includes allowing IRS publications to be used as official regulations to the tax code, since it is written in much more easy-to-read style (Monroe, 2017). Another possibility is to make the “TurboTax Defense” more clearly outlined in the Tax Code and its Regulations (Mock and Shurtz, 2014). Lastly, Blank and Osofsky (2017) point out numerous ways that the taxpayers’ instructions and filing system could be simplified by using laws that are currently written, including the Plain Writing Act of 2010 and the Taxpayer Bill of Rights of 2015.

CONCLUDING COMMENTS

Technological innovation often creates unintended consequences. This is certainly true of the evolution of computer-prepared tax returns. From its inconspicuous beginnings in the 1960s, today over 90% of 1040s are filed online. This growth has coincided with incredible increases in tax complexity over the same

period of time. The first 30 years or so of computerized tax preparation evolution did not appear to have the intention to make the tax liability obscure from the taxpayer. Instead, it appears to be simple “start and stop” phenomenon of trying to apply advancing computer software and hardware technology to In the mid-1960s, only 100,000 or so returns were prepared using a computer. The initial usage computer-prepared returns were driven by the belief that the computer would limit errors made by preparers. Eventually though, the computer-prepared returns became so widespread that Congress could pass more and more complex laws, and taxpayers would simply rely more and more on the technology available. In addition, the IRS began to rely more and more on the electronic versions to lower its costs as well, and tax preparation companies began to enter the political arena of lobbyists to preserve the status quo.

This sort of “black box” system of tax preparation is not an optimal outcome for the taxpayer or the government for a variety of reasons. Taxpayers do not understand what their marginal tax rate is, and many do not understand the effects of additional work or investment decisions. The idea that all taxpayers should be able to complete a tax return using simply a pencil and a calculator seems overly ambitious. It could never be achieved given the economic complexity of the world today along with so much political polarization. On the other hand, the current system of simply creating more and more tax laws and “relying” on the growing technology of computerized is not feasible either. Unfortunately, creating such a simple system of taxation will mean considerable pushback from both some constituent groups, tax preparation software companies and tax preparation companies. Ultimately though, the possibility of increasing the amount of returns that can be “auto-prepared” by the US government to a level of 90% or better is a possibility. Future researchers will need to further examine the extent to which an individual’s income tax liability is hidden, and what factors (political, economic or social, including computer technology) hide that information, and how to make it more known and accessible to the taxpayer, as well as how to “auto-populate” more and more tax returns.

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AN INTERNAL CONTROL EVALUATION TOOL FOR PROPERTY EXPENDITURES

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ABSTRACT

This paper presents a previously unpublished tool for conducting the initial assessment of internal control objectives and activities for the expenditures cycle of companies with income-producing properties. Variations of this tool are used by Certified Public Accounting firms in their independent audits of such companies. We discuss the tool's potential usefulness to both independent auditors and executives of such companies, as well as the tool's place within the existing literature on internal control. How the quality of the tool could be assessed is also discussed.

JEL: M42, M41, M10

KEYWORDS: Internal Control, Expenditures, Income Producing Properties

INTRODUCTION

This paper offers a tool that is potentially useful to internal and external/independent auditors and the managers of companies with income-producing properties (i.e., income-producing real estate) to help determine whether important internal control activities for expenditures are in place. The income producing property industry is dominated by the REITs (Real Estate Investment Trusts). This sector of the industry accounts for assets of over \$650 billion in the United States. Of the approximately 1,000 companies in this sector, about 170 are publicly traded (First Research, 2013). A strong system of internal control is important to independent auditors as well as their auditees. U.S. Generally Accepted Auditing Standards (GAAS) require independent auditors to assess the strength of all of their audit clients' systems of internal control, and to test any controls that the auditor intends to rely upon. Generally speaking, the stronger the client's system of internal control, the less time the overall audit will take, and the less costly the audit will be to the client. In extreme cases, if the client's internal controls are especially weak, the auditor might not be able to render an opinion on the client's financial statements. Publicly traded companies have additional requirements for maintaining a strong system of internal controls. U.S. GAAS requires auditors of public companies to conduct an integrated audit of both the client's internal control over financial reporting, as well as its financial statements, conducted in accordance with PCAOB Auditing Standard No. 5 (AS 5) (PCAOB, 2007).

Internal control is important to the executives and managers of publicly traded companies for several reasons. First, as mentioned above, in extreme cases, if internal controls are weak enough, the auditor might not be able to issue an opinion on the client's financial statements. This would be an adverse outcome for any client, since the client would not receive a required report (e.g., in order to obtain financing). For a publicly traded company, such an outcome could result in the Securities and Exchange Commission (SEC) either suspending trading of the company's stock, or delisting the company's stock altogether. That's because an SEC-mandated annual filing of a public company's financial statements that are not accompanied by an unmodified ("clean") audit opinion is considered by the SEC to be a

deficient filing. In addition, the Sarbanes-Oxley Act of 2002 (SOX) (U.S. House of Representatives 2002), Section 404, requires the management of publicly traded companies to assess and report on the operating effectiveness and design of their company's internal control system on an annual basis. Independent auditors are required to issue an adverse opinion on the client's internal control over financial reporting if the auditors find a material internal control weakness. As discussed below, the presence and possible disclosure of internal control weaknesses has adverse implications to investors and other stakeholders. For example, Cheng, Goh and Kim (2018) find that operational efficiency is lower for companies with material internal control weaknesses than for companies without such weaknesses. Finally, the cost to public companies of compliance with SOX Section 404 is considerable. Krishnan et al. (2008) estimate that the mean total initial cost to companies of complying with Section 404 of SOX is \$2.2 million (estimated median total initial compliance cost is \$1.2 million).

Internal control over the expenditures cycle is especially important to both auditors and managers, because frauds related to the expenditure process remain among the most common frauds that occur in practice (Verver 2013). Internal control and internal control related variables are used in many empirical studies that focus on internal controls in general rather than on internal control over a specific process or in a particular industry. Such studies are essential to understanding how internal control interacts with other variables in the business environment. Auditors and executives of companies, on the other hand, have a pressing need to know whether that company's internal controls accomplish what they need to accomplish. Auditing textbooks provide guidance with respect to internal control in general, and with respect to specific cycles, such as the expenditures cycle. Auditors could benefit from authoritative and reasonably comprehensive guidance about specific internal control objectives and control activities for specific industries, but this kind of specific guidance is not always available.

This paper provides a tool that can be used by internal and external auditors as well as managers of companies with income producing properties to help make an initial assessment as to whether important internal control activities are in place, and whether important internal control objectives are being met for the expenditures cycle. The authors are unaware of any other publicly available tool of this kind. The remainder of this paper is organized as follows. First, we review the literature on internal control, both in general, and also specific to the expenditures cycle for companies with income-producing properties. Second, our methodology is described. Third, the expenditure process internal control evaluation tool is presented. Fourth, we describe how one might go about assessing the usefulness of the tool. Finally, concluding comments are provided.

LITERATURE REVIEW

Internal control and internal control related variables are used in many recent empirical studies that do not focus on internal control over the expenditures process, or on companies with income-producing properties. For example, Kravet et al. (2018) investigate managers' decisions to, on a temporary basis, exempt newly acquired businesses from the requirements of Section 404 of the Sarbanes-Oxley Act. Section 404 requires public companies to include in their filings with the SEC a report which contains management's assessment of the effectiveness of internal control over financial reporting. Kravet et al. (2018) provide evidence as to the merits of such internal control audits. The authors find that managers are more likely to choose the exemption when they expect compliance costs to be higher. They find moderately strong evidence of managers using the exemption in order to avoid inquiries into value-reducing deals. However, they find that exemption use is associated with several unfavorable post-acquisition outcomes. These outcomes include lower return on assets, and higher probabilities of restated financial statements and goodwill impairments. The authors find evidence consistent with non-exemption helping to promptly identify and correct control problems in the acquired business, and with investors having a generally negative view of exemption use.

Basu et al. (2018) investigate why some firms undergoing initial public offerings (IPOs) choose to disclose their internal control weaknesses (ICWs), as well as corrective progress, in their prospectuses prior to the IPO, despite being exempt at the time of the IPO from having to do so under the requirements of SOX Sections 404 and 302. They also investigate the association between such disclosures and IPO underpricing. Findings show that IPO firms that choose to disclose both ICWs and corrective progress have higher risks associated with possible litigation. The authors also find that IPO firms choosing to make such disclosures are more likely to be audited by auditors with industry specialization, and they have a higher likelihood of having audit committees before the IPO, compared with firms that do not choose to disclose such information. They find lower IPO underpricing for firms that disclose ICWs and corrective progress. Results are consistent with the disclosure of ICWs and corrective progress reducing information asymmetry between uninformed and informed investors.

Tan and Yu (2018) investigate in an experimental setting the effects of both the extent to which management accepts responsibility for internal control weaknesses, and the source of the internal control breach (internal or external) on investor reactions to reports on internal control associated with SOX Section 404. The authors' predictions are based on the triangle model of responsibility (Schlenker, Britt, Pennington, Murphy, and Doherty 1994), which predicts that the extent to which investors hold management responsible for a regrettable event is determined by the links between three factors: management, the regrettable event, and applicable accounting standards/regulations or the public's expectations. Their experiment studies how the source of the breach (internal vs. external) lessens the effectiveness of management's acceptance of responsibility for the breach (higher vs. lower). Their results show that a greater (vs. lesser) acceptance of responsibility on the part of management is a more effective strategy in the case of an "external" breach, but not in the case of an "internal" breach. Additional experiments suggest that this result is caused by the strength of the triangle links related to the internal vs. external breaches, rather than by the source of the breaches per se.

Cheng, Goh and Kim (2018) investigate whether internal control over financial reporting has an effect on the company's operational efficiency. Their results show that operational efficiency is significantly lower for companies with material weaknesses in internal control, as compared with companies without such weaknesses. They also show that the correction of material weaknesses leads to an increase in operational efficiency. Additionally, results show that the adverse effect of material weaknesses on operational efficiency is greater for companies that have a stronger demand for higher quality information for decision making, for more severe weaknesses, and to some extent, for smaller companies. Bauer, Henderson & Lynch (2018) examine whether the quality of a supplier's internal control is associated with the duration of supplier-customer relationships. Internal controls affect the quality of information, so they affect whether partners in a supply chain can rely on the information sharing systems needed in order for the partners to reliably contract with each other. The authors use SOX-related disclosures of ICWs as a proxy for poor internal control quality, and use U.S. GAAP-mandated disclosures of major customers to identify customer-supplier pairs. The authors find that poor internal control quality increases the probability of later termination of the supplier-customer relationship. They also find that timely correction of control weaknesses lowers the likelihood of relationship termination. Finally, they find that the effect of internal control quality on relationship termination is driven by control weaknesses affecting customer contracting. Overall results are consistent with customers regarding strong supplier controls as important aspects of contracting that can significantly affect supply chain relationships.

Darrough, Huang & Zur (2018) study whether internal control disclosures required by sections 302 and 404 of SOX have an effect on the corporate control market. The authors hypothesize that acquiring companies with ICWs make less-than-optimal acquisition decisions because of inferior information generated by their poor-quality controls over financial reporting. They predict that acquirers with ICWs will have a greater chance of misestimating the value of the companies they wish to acquire or the possible synergies that could result from mergers. As a result, they predict that such acquirers overpay

for consummated deals. The authors use a treatment group of acquisitions made by companies with disclosed ICWs, and two matched control groups of acquisitions by firms without ICW disclosures. Results show that acquirers with ICWs have a significantly greater negative market reaction to acquisition announcements, and that they have less favorable future performance than the two control groups with no ICW disclosures. They conclude that ineffective internal control over financial reporting interferes with decision making with respect to mergers and acquisitions. There are many high-quality sources of normative information about internal control in general (e.g., Louwers et al. 2018, Ch. 5; Arens et al. 2017, Ch. 11; Whittington & Pany 2014, Chs. 7 & 8), as well as internal control for the expenditures process in general (e.g., Louwers et al. 2018, Ch. 8; Arens et al. 2017, Ch. 18; Whittington & Pany 2014, Ch. 14). Such information is of interest to auditors and accountants, as well as to executives and board members who are responsible for the effectiveness of a company's internal control system. However, we could find no generally available source of information about the specific internal control activities that should be present in the expenditures cycle for a company with income-producing properties.

While the internal control components specified by the COSO (2013) framework should be present in all organizations, the specific internal control activities that should be present in a given organization will depend on the outcome of the organization's risk assessment (e.g., Louwers et al. 2018:183). Since companies with income-producing properties face some common risks that companies in other industries do not face (e.g., damage by tenants to rental properties), it follows that there will be internal control activities appropriate to companies with income-producing properties that will not be as commonly seen in other industries. This is true in general, and for specific cycles such as the expenditures cycle. The American Institute of Certified Public Accountants (AICPA) has published a series of Audit and Accounting Guides, and, in earlier years, AICPA Accounting Guides and AICPA Industry Audit Guides. These guides typically deal with accounting and/or auditing issues of a particular type, and/or in specific industries. For example, there are specific Audit and Accounting guides for airlines (AICPA 2016), state and local governments (AICPA 2018a) and entities in the health care industry (AICPA 2018b). In addition, there is a specific Audit and Accounting Guide for revenue recognition (AICPA 2019), and there are specific Audit Guides covering analytical procedures (AICPA 2017a) and Audit Sampling (AICPA 2017b). However, there is no specific Audit or Accounting guide covering companies with income-producing properties, or an Audit or Accounting guide specifically devoted to expenditures.

Several prior papers have presented internal control checklists for specific industries – both in general, and for specific cycles. For example, Orchard and Butterfield (2009) present an internal control evaluation tool (across various cycles) for the construction industry. Orchard and Butterfield (2011) present an internal control evaluation tool for the revenue cycle in the homebuilding industry. Similarly, Orchard and Hoag (2014) present an internal control evaluation tool for the revenue cycle for manufacturers, while Orchard (2010) does the same for the advertising revenue cycle in the newspaper and magazine publishing industry.

METHODOLOGY

The authors were granted access to industry-specific internal control tools (similar to checklists) used by a large Certified Public Accounting firm in its audits of clients in various industries. This firm agreed to let the authors publish these tools as part of their research, on the condition that the name of the firm as well as other identifying information remain confidential. This CPA firm modifies these tools in order to fit the circumstances of specific audit engagements and specific clients. In other words, these tools serve as a foundation for the firm in writing a list of specific controls that ought to be present for a specific client in a specific industry. We have modified the format of material provided by the CPA firm in order to provide clarity for the reader. Specifically, the material provided by the CPA firm is an Excel spreadsheet, with specific internal control activities listed in the left column, and the internal control objectives listed on the top row. In the firm's materials, the cell at the intersection of a given row and

column is either blank, or contains either the word “partial,” or the word “full” (see below). Most of the cells are empty, indicating that that particular control activity does not help achieve that particular control objective. Our tables only present information for the combinations of rows and columns for which the given control activity, if functioning as intended, either partially or fully achieves the given control objective.

The Expenditures Process Internal Control Evaluation Tool

In May 2013, COSO issued a revision version of its original (1992) internal control framework. The COSO (2013) framework’s definition of internal control is “a process...designed to provide reasonable assurance regarding the achievement of objectives related to operations, reporting, and compliance.” Specifically, these objectives relate to the efficiency and effectiveness of operations (including the safeguarding of assets against loss), internal and external financial and nonfinancial reporting, and compliance with regulations and laws that apply to the entity (COSO, 2013). According to COSO’s (2013) framework, internal control consists of the following five integrated components: (a) Risk Assessment; (b) the Control Environment; (c) Information and Communication; (d) Control Activities, and (e) Monitoring. The tool presented below fits within the “Risk Assessment” and “Control Activities” components of COSO’s framework, and should be helpful to both independent auditors and managers of income-producing properties who are interested in assessing important control risks and in identifying key control activities that might provide benefits that exceed their costs to the entity (Orchard and Hoag, 2014). The evaluation tool is presented in Tables 1 and 2.

Because the laws and regulations that apply to entities vary from one entity to another, and from one legal jurisdiction to another, the evaluation tool relates primarily to COSO’s (2013) control objectives dealing with the reliability of reporting and the efficiency and effectiveness of operations rather than with legal or regulatory compliance (Orchard and Hoag, 2014). Table 1 provides a listing of suggested control activities for the expenditure process, while Table 2 provides a listing of significant control objectives for that process. Most control objectives in Table 2 are accompanied by several two- or three-character alphanumeric codes, each of which corresponds to a control activity shown in Table 1. The number part of each code in Table 2 corresponds to a particular control activity (shown in Table 1 in numerical order). The letter part of each code in Table 2 (“P” or “F”) denotes whether the control activity that is referred to (assuming it is operating in an effective manner) “partially” or “fully” satisfies the related internal control objective. Independent auditors might wish to consider whether a company’s omission of a critical internal control activity increases audit risk.

Table 1: Suggested Control Activities

Ref.	Control Activity
1	A responsible party reconciles expenditures and related accounts in the general ledger to the supporting detail (for example, depreciation expenditures to the property system, and salaries expenditures to payroll records) and resolves differences in a timely manner. Management, independent employees, or internal auditors perform direct tests (other than via analytical review) of the recording and reconciliation of these expenditures and related accounts.
2	Actual expenditures are assessed relative to the budget at regular intervals; management examines and signs off on significant variances.
3	Management approval is necessary for all purchase orders. Higher level management approval is necessary for unusual purchases (for example, capital expenditures or standing orders) and for all purchases in excess of established limits. The Board of Directors must approve certain stipulated types of purchases, and this approval must be documented in an appropriate manner.
4	Purchase orders are prenumbered sequentially. A responsible person accounts for the sequence of purchase orders processed.
5	Management reviews and approves purchase orders prior to mailing to the supplier.
6	Management reviews reports detailing overrides of established purchase order prices, terms, and conditions and approves these overrides.
7	Purchase orders are batched. Input that is batched is balanced. Batches that are out-of-balance are promptly corrected.
8	Management reviews documentation supporting a payment before approving the payment. Supporting documentation is canceled promptly after payment has been made.
9	Credit notes, invoices and other adjustments associated with accounts payable are validated and edited; identified errors are promptly corrected.
10	Purchase order data are validated (and edited); identified errors are promptly corrected.
11	Transactions that affect accounts payable (such as invoices and credit notes) are put in batches, and batched data to be entered are balanced. Batches that are not in balance are promptly balanced.
12	Goods received are matched manually or on-line with invoices and/or purchase order details. Long-outstanding receiving reports, invoices and/or purchase orders are investigated in a timely manner and, if appropriate, accrued. Documents are canceled promptly when matched, or when the invoice is paid in order to prevent reuse.
13	Disbursements (especially those near the end of an accounting period) are examined in order to ensure that they are completely and consistently recorded in the appropriate accounting period.
14	Statements sent from suppliers are regularly reconciled to the applicable accounts in the accounts payable subsidiary ledger; discrepancies are scrutinized.
15	Invoices not matched to receiving reports (or other appropriate supporting documentation in the case of services received) are investigated. Payments on unmatched invoices require specific management approval.
16	Management reviews recorded purchases (receipts of goods) based on its knowledge of day-to-day activity.
17	Goods receipt vouchers (proof-of-delivery documentation) are prenumbered; the sequence of such vouchers is accounted for.
18	Data that are conveyed from the purchase order entry subsystem to the receiving and/or accounts payable system are reconciled between systems; all errors identified are corrected promptly.
19	Data on goods received are batched. Batched data to be entered are balanced. Batches that are not in balance are promptly balanced.
20	Managers review an aged accounts payable analysis and investigates any unusual items.
21	A list is prepared at the conclusion of the accounting period of outstanding purchase orders for which ownership of the goods changes prior to (rather than at the time of) delivery. This is done to help ensure that such transactions get recorded in the proper accounting period. Management reviews this list.
22	Notes related to returned goods are matched to credit notices; differences are promptly investigated.
23	Goods returned notes are prenumbered sequentially. The sequence of goods returned notes is accounted for and long outstanding unmatched goods returned notes are reviewed and investigated.
24	Credit notes and supplier invoices received (particularly near the conclusion of a fiscal period) are carefully examined and/or reconciled to make sure that they are completely and consistently recorded in the appropriate accounting period.
25	Goods received (particularly near the conclusion of a fiscal period) are carefully examined and/or reconciled to make sure that they are completely and consistently recorded in the appropriate accounting period.
26	Goods returned (particularly those returned near the conclusion of a fiscal period) are carefully examined and/or reconciled in order to make sure that return transactions are recorded in a consistent and complete manner in the proper accounting period.
27	Suppliers that the entity has not purchased from for a long enough period of time are examined and, if appropriate, flagged for deletion by the software.
28	Changes that have been made to the supplier master file are compared to approved source documents to make sure they were recorded accurately.
29	Management reviews a list of payments to be made to suppliers prior to payment.
30	Checks are prenumbered sequentially, and a responsible person accounts for the sequence of checks processed. Spoiled checks are voided to prevent reuse and filed for later inspection.
31	Individuals who make electronic funds transfers are authorized to do so by management.
32	A purchase requisition authorization list is maintained, which specifies the maximum amounts for which individuals are authorized to approve purchase requisitions.
33	Someone independent of the purchase order entry process compares purchase order entry data to source documents.
34	Management monitors statistics on deliveries of goods that are rejected due to missing or nonmatching purchase orders. Management should identify the reason for the rejection and process adjustments where necessary.
35	Purchase requisitioning, purchasing, and accounts payable functions are carried out by an integrated application system. The general ledger is updated automatically for transactions in which goods are received or disbursements made.
36	Management reviews and approves credit notes and adjustments prior to posting to accounts payable.
37	The purchases and accounts payable system will not allow users to make adjustments to supplier accounts in excess of original order amounts or approved limits.

38	Significant changes to the supplier master file are not made without the approval of management.
39	A log is kept of all requests to change data in the supplier master file. A responsible party reviews the log to make sure that all changes requested are made in a timely fashion.
40	Management periodically reviews supplier master file data for ongoing relevance as well as accuracy.
41	Requests that data in the supplier master file be changed are presented on prenumbered forms. A responsible party accounts for the numerical sequence of these forms in order to make sure that all changes requested are made in a timely fashion.
42	Data in the supplier master file are validated and, if necessary, edited. Identified errors are promptly corrected.
43	Electronic queues are used by management to approve credit notes and adjustments; access to the queues is requested by logical security.
44	Access to unissued purchase requisitions and purchase orders is limited to authorized personnel only.
45	Management reviews for propriety all recorded nonsystematic debits to accounts payable (e.g., those originating from sources other than a disbursements journal).
46	Check preparers restrictively endorse the checks to make sure that the funds are paid to the named payee.
47	Management periodically reviews returned paid checks for unauthorized signatures, alterations, and/or endorsements.
48	Batch input data for payments are balanced, and discovered errors are promptly corrected.
49	Criteria for selecting suppliers are specified and disseminated by management to make sure that goods and services are only procured from appropriately approved vendors.
50	Criteria for making purchases are specified and disseminated by management to make sure that goods and services purchased are appropriately authorized.
51	Invoices for services received are official and transmitted with appropriate supporting documentation.
52	A responsible party edits and validates disbursement input data. Any errors identified are corrected promptly.
53	The entity's software restricts to authorized personnel the capability of creating, changing, or cancelling purchase orders or outline agreements (standing purchase orders).
54	The functionality of the software's approved vendor list will only allow specific materials to be purchased from suppliers included in the vendor list for the specific material.
55	The entity's software limits the ability to change, create or vendor master records to authorized personnel.
56	The software is used to authorize outline agreements (that is, standing purchase orders), purchase orders, and unusual purchases (e.g., capital expenditures).
57	The exchange rate table is centrally maintained. Values in the exchange rate table are approved by management. The entity's software restricts to authorized personnel the capability of modifying this table.
58	The entity's software limits to authorized individuals the ability to input, change, or cancel transactions that would result in goods being received.
59	The entity's software edits and validates financial documents on-line.
60	The entity's software limits to authorized individuals the ability to delete, change, or create vendor pricing information.
61	The entity's software validates and edits payment transactions online.
62	The entity's software automatically computes any foreign currency translation amounts based on amounts in the table of exchange rates, which is centrally maintained.
63	The entity's software restricts to authorized personnel the capability for inputting, changing, cancelling, or releasing vendor invoices for payment.
64	The entity's software edits and validates purchase orders, contracts, and outline agreements (that is, standing purchase orders) on-line.
65	The entity's software automatically matches vendor invoice transactions to receipts of goods and purchase orders. It then posts the invoices to the appropriate vendor account in Accounts Payable and to the Accounts Payable control account in the general ledger. Alternatively, the software can automatically generate and post vendor invoices once the receiving report is posted.
66	The software's payment run parameter specification is approved by management; the software restricts to approved personnel the capability of modifying the payment run parameter specification or initiating a payment run.
67	Reports generated by the entity's software of changes to vendor master records are compared to a manual log of requested changes and/or authorized source documents to make sure that all valid changes were entered correctly and in a timely manner.
68	The entity's software restricts to authorized individuals the capability to enter vendor invoices that don't have a receiving report and/or a purchase order as support.
69	The entity's software restricts to approved personnel the capability of releasing invoices for payment that have been blocked from being paid, either for a specified vendor or for an individual invoice.
70	The entity's software limits to authorized individuals the ability to change, create, or cancel purchase requisitions.
71	The entity's software edits and validates purchase requisitions on-line.
72	A responsible party regularly reviews the software's reported information about gaps in the sequence of numbered documents.
73	Bank statements are reconciled to the cash account in the general ledger regularly.
74	The entity's software limits to authorized individuals the capability of deleting, changing, or creating contracts, delivery schedules and sales orders.
75	The entity's software validates and edits order entry transactions online.

This table presents a list of suggested control activities for the expenditure process in companies with income-producing properties. Each activity in Table 1 either partially or fully satisfies one or more of the control objectives in Table 2 below. Please see Table 2, and the description beneath Table 2 (or the text), to see which control activities partially or fully satisfy a given control objective.

Table 2: Control Objectives & Suggested Control Activities

Control Objectives	Control Activities
Purchase orders are placed only for accepted requisitions.	3F, 5F, 6P, 32P, 35P, 44P, 49P, 50P, 53P, 54P, 56P, 69F
Purchase orders are entered accurately.	7P, 10P, 33F, 34P, 58P, 63P
All issued purchase orders issued are entered and processed.	4F, 7P, 34P, 35F, 70P
Amounts credited to accounts payable are for goods received.	1P, 2P, 12F, 15F, 16F, 67P
Amounts credited to accounts payable are for services received.	1P, 2P, 51F, 67P
Amounts related to accounts payable are recorded and correctly calculated.	1P, 2P, 9P, 14F, 16F, 18P, 19P, 35P, 57P, 58P, 61P,
All dollar amounts related to goods received are processed and input to accounts payable.	2P, 11P, 12F, 14F, 16F, 17F, 18P, 19P, 35P, 71P
All amounts billed to the company for services received are processed and input to accounts payable.	2P, 11P, 14F, 18P, 35P, 71P
All amounts billed to the company for services or goods received are journalized in the proper accounting period.	1P, 12F, 14F, 21P, 24F, 25F, 72P
Accounts payable amounts are only adjusted for legitimate cause.	14F, 36F, 37P, 43F, 45F, 55P, 59F, 62P, 67P
Adjustments to accounts payable (such as credit notes) are accurately calculated and then recorded.	9P, 11P, 14F, 37P, 57P, 58P
All legitimate adjustments to accounts payable (for example, for credit notes) are input and processed.	11P, 14F, 22P, 23P, 35P, 71F
Adjustments to accounts payable (such as for credit notes) are journalized in the correct accounting period.	14F, 21P, 24F, 26F
Assets and liabilities reflect the existing economic conditions and business circumstances in agreement with the accounting policies being used.	None
Financial information is not presented in a misleading way, and all facts needed for fair presentation as well as consistency with applicable standards (e.g. GAAP) or legal mandates are disclosed.	None
Disbursements are only made for services and goods received.	2P, 8F, 29F, 31P, 47P, 64P, 65P, 68P
Disbursements are sent to the proper suppliers.	8P, 29P, 46F, 47P, 64P
Disbursements are correctly recorded and calculated.	2P, 8F, 11P, 14F, 48P, 52P, 58P, 60F, 65P, 72P, 73P
All disbursements are recorded.	14F, 20P, 30F, 64P, 71P, 72F, 74F
Disbursements are journalized in the accounting period in which payment is released.	13F, 72F
Only legitimate modifications are made to the data in the supplier master file.	28F, 38P, 40P, 55P, 58P, 59F
All legitimate modifications to data in the supplier master file are entered and processed.	39F, 40P, 41F, 66P, 71P
Changes made to the supplier master file are accurate.	28F, 40P, 42P, 58P, 66F
Changes made to data in the supplier master file are made in a timely fashion.	39F, 40P, 41F, 66F
Supplier master file data remains pertinent.	27P, 40P, 66P

This table presents a list of significant internal control objectives for the expenditures process for companies with income-producing properties. For most of these control objectives, the table lists (in the Control Activities column) several alphanumeric codes. Each code corresponds to a control activity shown in Table 1. The number part of each code in Table 2 corresponds to a particular control activity (shown in Table 1 in numerical order). The letter part of each code in Table 2 ("P" or "F") denotes whether the control activity referred to (assuming it is operating in an effective manner) "partially" or "fully" satisfies the related internal control objective.

ASSESSMENT

This tool is being used by the large CPA firm that granted the authors access to their materials. Positive Accounting Theory (Watts & Zimmerman 1986) seeks to predict and explain accounting methods that are actually in use, assuming for the most part that current accounting choices are rational, if not optimal. From the perspective of Positive Accounting Theory, then, the use of this tool by the large CPA firm is evidence of its usefulness to the auditing profession. Another method of assessing the tool's usefulness could be to compare the controls in the tool with controls generally prescribed for the expenditures cycle by auditing textbooks. We infer usefulness since the controls in the tool are consistent with the controls prescribed by auditing textbooks, but with increased specificity to companies with income-producing properties. The tools' internal control activities seem to partially or fully achieve the intended control objectives for income producing properties.

CONCLUDING COMMENTS

This paper offers an instrument useful for evaluating internal control over the expenditure cycle of companies which manage income-producing properties. By providing a benchmark for comparative purposes, this instrument is potentially useful to both independent auditors who are carrying out a preliminary evaluation of internal, and to business managers with possible concerns about the effectiveness of their company's internal control system. The expenditure process internal control evaluation tool provides a framework for auditors and managers of income-producing properties in assessing control risks and identifying key control activities. The authors were granted access to industry-specific internal control tools used by a large CPA firm in its audits of clients in various industries, and given permission to publish these tools as part of the authors' research, on the condition that the name of the firm and other identifying information remain confidential. This evaluation tool can be useful to auditors of companies with income-producing properties, as well as to controllers or CFOs of companies with income-producing properties who might not be completely satisfied with the effectiveness of their internal control over the expenditures process. The dynamic nature of the business environment and the necessary periodic monitoring of the system of internal control to ensure proper performance (COSO, 2013) contribute to the usefulness of this evaluation tool.

Several limitations should be noted. This internal control evaluation tool is not intended to be a comprehensive guide to internal control over the expenditure process for companies with income-producing properties. Although the tool emphasizes control objectives concerned with the reliability of financial reporting and the efficiency and effectiveness of operations, it does not emphasize controls that might be deemed necessary by independent auditors conducting audits of compliance with government regulations. The tool does not emphasize controls for "Yellow Book" audits subject to Generally Accepted Government Auditing Standards that might apply due to client contracts with governmental agencies such as the U.S. Department of Housing and Urban Development. As noted previously, the tool focuses on the risk assessment and control activities components of internal control and does not emphasize the auditor's assessment of the client's control environment, information and communication, and monitoring components of internal control. The tool is intended for auditors seeking to conduct their audits in accordance with U.S. GAAS, and will only apply in other jurisdictions to the extent that applicable U.S. auditing standards apply in those jurisdictions. Future research in this area relating to controlling risk and identifying key control activities include examining governmental and non-profit organizations, particularly areas where risk and controls differ due to the non-profit orientation of these types of entities. Publication of other internal control tools of this type actually used by auditors when auditing specific cycles in specific industries would add to our common knowledge of how audits are being conducted.

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IMPACTS OF FISCAL REFORM ON DIVIDENDS: EVIDENCE FROM MEXICO

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ABSTRACT

This paper addresses the Mexican 2014 Tax Reform. Specifically, we examine the distribution of dividends made by thirty-five companies that make up the Price and Quotation Index of the Mexican Stock Exchange. We also examine shareholders who receive the dividends. Results show that companies refrained from declaring dividends in 2014 and payments normalized in 2015. Since 2015, as a result of the 2014 Tax Reform, which required shareholders who receive dividends to pay an extra tax of 10%, dividends have become less desirable. Companies have accumulated profits destined for reinvestment in the company.

JEL: G31, G38

KEYWORDS: Dividend Policy, Residual Theory, Tax Reform

INTRODUCTION

This document analyzes the impact of the Mexico 2014 tax reform on dividend payments. We consider thirty-five companies that make up the Price and Quotation Index (IPC) of the Mexican Stock Exchange (BMV). The reform requires payment of a 10% tax rate on dividends without any deduction. In other countries, such as the US, there is a special intercompany dividend deduction of 50% for subsidiaries with participation of less than 20% and 65% for subsidiaries with a participation greater than 20% (Flores Group, 2019).

There exists a large body of literature on dividend policies and their effects on the value of companies. However, no studies were found in the Mexican context in relation to fiscal reforms and dividends. This research contributes to the existing literature by examining if companies listed on the Mexican Stock Exchange stopped paying dividends in 2014, the year of the fiscal reform's entry into force.

Companies usually emphasize sending good signals to investors in the capital market. Investors receiving these signals increase in the price of the shares. Good financial administration helps incorporate economic value in organizations, which leads to a growth in dividends to be distributed to shareholders. However, in Mexico, the fiscal reform of 2014 has discouraged, at least temporarily, the distribution of cash dividends.

Dividends represent the distribution of company profits to shareholders based on their contributions. Normally, dividends are paid in cash, although in some cases they are paid in shares of the same company. A dividend policy is the formal action of the company that allows determining the form and amount in which the profits will be distributed through dividends or reinvested in the company (Mosqueda, Denos, & Guízar, 2006). This policy is commonly determined at the shareholders meeting.

Until 2013, individual residents in Mexico paid a maximum Income Tax (ISR) rate of 30%. This was the same amount as companies (legal or moral persons). Dividend income distributed by resident companies in Mexico were subject to tax and their distribution no longer implied any additional tax, regardless of who

received the dividend. In 2014, the ISR rate for legal persons remained the same, with a maximum rate of 30%, while for individuals increased substantial increase, with a maximum rate of 35%.

As of 2014, based on the new Income Tax Law (LISR) Individuals resident in Mexico or foreigners, whether individuals or companies that receive dividends from a company resident in Mexico, and individuals resident in Mexico who receive dividends from companies resident abroad will be subject to an additional tax of 10%. To clarify, (Aguilar, 2016) "the dividends between Mexican companies continue with the same previous rules; that is, if the companies have already paid the corporate ISR on profits in the company that generated them, they are no longer liable to the company that receives the dividends. As is known, the control of said profits is made through the Net Tax Profit Account (CUFIN)".

Through a transitory rule, the new LISR establishes that Mexican companies will carry two CUFIN records, one for utilities generated until December 31, 2013 and another for those generated as of January 1, 2014. If a firm pays dividends in 2014 or later, will be subject to the new tax only if they are paid from the 2014 CUFIN or subsequent years, but if they are paid from the 2013 CUFIN or previous fiscal years they will not be required to pay such tax. For a better explanation, the following example is presented: A company has generated a profit of \$ 1,000,000 of which it would have to pay \$ 300,000 (30%) of ISR leaving \$700,000 in accumulated profits that could be used to pay dividends to shareholders. Assuming that a shareholder (natural person) has income of 1,000,000, they would pay taxes at the highest ISR rate of 35%. As the company has already paid 30% the stockholders would have to pay the remaining 5%, regardless of whether the dividend comes from the 2013 or 2014 CUFIN.

If the dividend comes from CUFIN 2013, there would be no additional tax to be paid, and the effective ISR rate would be 35%. But if the dividend comes from CUFIN 2014, the individual shareholder will be subject to an additional 10% that must be retained and paid by the company that pays the dividend. In this case, the effective rate rises to 45 percent: 35% from the new rate and 10% from the new dividend tax. In cases of dividends paid to foreigners, whether individuals or corporations, the new dividend tax of 10 percent applies, although the resulting final tax will depend on the applicable Double Taxation Agreement (CDI) that could reach up to 10 percent.

The remainder of this work has been structured as follows. The next section presents a review of the existing literature. The following section presents the methodology. A linear regression model is applied, which analyzes the impact of the 2014 tax reform on Mexican company dividends. Next we explain the results. The paper closes with some concluding comments.

LITERATURE REVIEW

Theoretical Framework

One of the most important strategic decisions that should be made in the boards of directors and/or corporate governments of companies, is the establishment of a dividend policy. Various analyzes have been carried out and models have been developed that must be considered to determine the amount of dividends to be distributed. "The dividend policy determines how the profits of a company are distributed, these can be retained and reinvested or paid to shareholders" (Moyer, McGuigan, & Kretlow, 1998). Therefore, several practical considerations influence the determination of an "optimal dividend policy".

In recent years retained earnings have been an important source of financing for companies. Companies commonly consider that dividends can stimulate the growth of future profits, so they can influence the future value of the shares. They also consider that shareholders expect their investment to provide tangible present returns through dividends. Dividend policies vary depending on the sector to which the company belongs and even within the same sector there may be considerable variations.

According to (Moyer, McGuigan, & Kretlow, 1998) "In a closed corporation, with relatively few shareholders, dividends can be established according to the preference of its shareholders, assuming that most of them are in a high category of shareholders. Marginal taxes will favor a policy of high retention of profits whose result is an eventual increase in the prices of the shares. However, a high retention of profits means that the company has enough acceptable capital investment opportunities to justify its low dividend payment policy".

On the other hand, in large companies, such as those with shares that are traded on the Mexican Stock Exchange (BMV), it is not feasible to take into account the individual preferences of shareholders to establish the dividend policy. In this case there will be investors in the highest marginal tax rate categories who may prefer the company to reinvest profits, thereby decreasing the dividend rate. But there will also be shareholders, such as retired people and those who live on fixed incomes (sometimes referred to as widows and orphans), who may prefer a high and constant dividend rate.

Residual Payment Policy

Moyer, McGuigan, & Kretlow (1998) explain that "This policy suggests that companies should retain profits while they have investment opportunities that promise rates of return above the required rate, that is, while the company can invest the profits to earn this required rate or more, it must not pay dividends because it would cause wasted acceptable investment opportunities or the need to obtain the necessary capital possibly more expensive in the external capital markets". The residual dividend theory implies that the dividend rate will vary each year, depending on the investment opportunities. However, there is evidence that most companies try to maintain a more or less stable record of dividend payments over time.

Stable Dividend Policy

Most companies and shareholders prefer reasonably stable dividend policies as explained by Moyer, McGuigan, & Kretlow, 1998. This stability is characterized by reluctance to reduce the amount of money paid as dividends from one period to the next. Some company managers consider a stable and growing dividend policy as tending to reduce investors' uncertainty about future dividend flows.

Other dividend policies that some companies have adopted are: "the dividend policy with a constant reason for payment". Companies that use this policy pay a certain percentage of their profits as dividends each year. Therefore, if profits vary substantially each year, dividends also fluctuate. Some companies decide to pay a small quarterly dividend plus an additional annual premium. This policy favors companies that have volatility in their profits or in their cash needs from year to year.

Regardless of the dividend policies adopted by companies, in order to determine the consequences of the 2014 tax reform in companies and shareholders, it is necessary to take into account various theories. We consider these two main doctrines of thought that predominate among scholars of finance stand out regarding the effect of the dividend policy on the value of a company. The importance of considering such theories is that the main objective of financial managers is the maximization of the value of their companies. Dividend decisions are crucial to achieve this objective. The first theory was introduced by Miller and Modigliani (1961). They argue that dividend policy does not have a significant effect on the value of the company. A second theory, supported mainly by Gordon (1959), argues that dividend policy does affect firm value. Our study is not intended to support one or another theory. We consider both theories to determine what effect the tax reform has had on companies with different dividend policies.

The Miller and Modigliani line of thought states that the value of a company is determined solely by its investment decisions and that dividend policy is a mere detail. This argument depends on several fundamental assumptions, among which the following are included: a) There are no taxes, b) There are no

transaction costs, c) There are no issuance costs and d) The existence of an investment policy is fixed. Furthermore, Miller and Modigliani argue it is the investment policy, and not the dividend policy that determines the value of the company. For Gordon and Lintner this is not true. They claim that a dividend policy does affect the value of the company.

Another important aspect is that of taxes, according to Brigham & Houston (2001), there are three reasons related to corporate taxes to think that shareholders might prefer a low payment reason to having to receive a high payment, based on the "Theory of fiscal preference".

Holland & Coelho (2012) note that "There are investors who have a preference to receive dividends, while others prefer capital gains derived from withholding; The clientele effect theory says that investors are directed to invest their funds in companies with policies that allow them to appropriate their preferred dividends. An important aspect is the informative content of the dividends, if the dividends do not produce an effect on the share price, and a positive change is observed is attributable not to the dividend itself, but to the informative content of dividends with respect to future profits".

Gutiérrez Urzúa, Yañez Alvarado, & Umaña Hermosilla, (2012) analyzed the dividend payment rate of Chilean companies, considering aspects such as the payment of mandatory dividends, the high concentration of property, growth opportunities and the presence of institutional investors. They found evidence, for the period from 2001 to 2007 using multiple linear regressions for maximum likelihood, of the use of dividends to "deliver information on future projects of the company".

Loss & Neto (2006) carried out an empirical investigation of a possible interrelation between dividend policies applied by the investment companies listed on the São Paulo Stock Exchange. (BOVESPA) in Brazil. The objective was to identify if Brazilian companies change their dividend policy before the needs of permanent investment. This investigation support propositions, especially the theoretical classic of Modigliani (1961). The empirical research was conducted with the use of multiple regression analyzes applied to a sample of 476 combined observations covering the period 1998-2002. They found no relationship between these policies. The results of this research were as follows: "As the Brazilian market cannot be considered perfect, this evidence shows that any imperfection in other markets is not justified to explain the evidence that there is some relationship between the dividend policy and investments". Other factors that influenced the empirical results include regulation of the dividend. The policy cannot be ignored in this type of analysis. This research only includes variable dividend policies.

Maqueira & Danús, (1998) in their article "Agency Costs and Transaction Costs as Determinants of the Dividend Payment Rate in Chile", analyze determinants of dividend payment rates in Chile. They note that: "Based on a model that minimizes the sum of agency costs and transaction costs, the analysis is based on a cross-sectional study during the period of 1986-1992 for a sample of 60 corporations, whose hypotheses to examine in relation to the dividend payment rate are: a) the lower the dividend rate, the higher the expected future growth, b) the lower the dividend rate, the higher the beta coefficient, and c) the higher the dividend rate, the lower the fraction of the dividend assets that the insiders take and/or a larger number of shareholders own the assets" (Maqueira & Danús, 1998).

Torrez (2006), conducted a study published under the title "The Effect of Dividend Tax Policy on Corporate Investment." This article develops a model that examines the effects that tax reduction had on corporate investment. The authors found that tax reduction increases the cost of corporate capital and reduces investment. Any increase in the value of the stock as a consequence of this act, will be the result of an increase in yields after subtracting taxes and not from increased production. When companies pay less taxes, shareholders entitled to dividends will have more benefits in this way which translates into a lower amount of resources to make investments in new projects that suit the company organization. The company will be forced to seek different means to get resources for future operations.

Another article that talks about the effects of fiscal aspects on dividends and how it affects the price of shares is Ayers, Cloyd, & Robinson (2000). They investigated the effect of an increase individual income tax rates at the shareholder level share values. They examine accumulated daily returns around the approval of the 1993 Income Reconciliation Law on the firm dividend yield. "Specifically, we examined abnormal returns in common shares during the five-day period in 1993, when Congress enacted the Revenue Reconciliation Act (LRI) of 1993, which increased the maximum rate of tax for individuals from 31.0 percent to 39.6 percent hundred. We predict that the tax effect on stock prices is a joint function of the firm dividend policy and the tax status of the company's marginal investor". (Ayers, Cloyd, & Robinson, 2000)

Other studies such as López & Saona (2007) have shown how managerial discretion affects ownership structure and dividend policy. Unlike previous studies, they identify some manifestations of agency costs and have examined the effect that these control mechanisms have on them.

Legal Framework

The distribution of profits of companies (legal persons) via dividend, must be done within a regulatory framework, basically addressing legal two systems: a) In commercial matters, the General Law of Commercial Companies (LGSM) and b) fiscal the Income Tax Law (LISR).

Article 16 of the General Law of Commercial Companies (LGSM) in its Fraction I establishes that "The distribution of profits or losses among the capitalist partners will be proportional to their contributions." Article 19 says that "the distribution of profits only It may be done after the financial statements that cast them have been duly approved by the shareholders' meeting or shareholders" (Undersecretary of the Interior, 1934). In addition, Article 20 of the aforementioned LGSM states that "from the net profits of any company, at least five percent must be separated annually to form the reserve fund, until a fifth of the share capital is paid. The reserve fund must be reconstituted in the same way when it decreases for any reason."

It is also established in Article 113 of the same (LGSM) that "Each share will only be entitled to one vote; but in the social contract it may be agreed that a part of the shares have the right to vote only in the Extraordinary Assemblies that meet to deal with the matters included in sections I, II, IV, V, VI and VII of article 182 clarifies that "Dividends may not be assigned to ordinary shares without first paying the voting shares by limiting a dividend of five percent. When in any social year there are no dividends or are less than said five percent, it will be covered in the following years with the indicated priority "(Undersecretary of the Interior, 1934).

Tax paid by the company is determined by applying the rate specified in Article 9 by multiplying the dividend or profit received by the factor of 1.4286. "Notwithstanding the provisions of the previous paragraph, individuals will be subject to an additional 10% tax on dividends or profits distributed by legal entities resident in Mexico. The latter will be obliged to withhold the tax when they distribute said dividends or profits, and they will receive it together with the provisional payment of the corresponding period. The payment made under this paragraph will be final" (Chamber of Deputies of the H. Congress of the Union, 2013).

In addition, Article 164 of the LISR establishes that income for dividends or profits, and in for profits distributed by legal persons, the source of wealth is in the national territory, when the person who distributes them resides in the country. Dividend or profit distributed by legal persons is considered income referred to in article 140 of this Law. The legal entity making the payments is subject to the provisions of Article 10 of the same Law. This fraction will be reported together with provisional payments in the corresponding month.

In the case of a reduction in the capital of legal persons, the calculation of income distributed per share is determined in accordance with Article 78 of this Law. It shall be made by decreasing the net tax profit balances from said profit. These balances will be determined by dividing the balances of the aforementioned accounts held by the legal entity at the time of the reduction, between the total of the person's shares at the date of redemption, including those corresponding to the reinvestment or capitalization of profits or any other another concept that integrates the accounting capital.

Article 165 of the LISR establishes that in the case of income obtained by a resident abroad through a legal entity referred to in Title III of this Law, it will be considered that the source of wealth is in the national territory, when the legal entity is resident in Mexico. The tax shall be determined by applying, on the distributable remnant, the maximum rate to be applied on the surplus of the lower limit established by the tariff contained in article 152 of this LISR. The tax must be paid by the legal entity on behalf of the resident abroad, together with the declaration indicated in Article 96 of the LISR or, as the case may be, on the dates established for it. The legal entity must provide the taxpayers with a record of the entire transaction.

DATA AND METHODOLOGY

To achieve the objective of this research, we followed a qualitative approach combined with a deductive method to infer the main consequences of the fiscal reform of 2014. The sample selection consisted of the thirty-five companies used to calculate the Price and Quotation Index (CPI) of the Mexican Stock Exchange BMV. Data was taken from the annual report of each company obtained from the BMV website.

An analysis was made of the dividend policy theories and the regulatory framework for the distribution of company profits, especially the reform of the Income Tax Law of 2014 (LISR) and the General Law of Commercial Companies (LGSM). We describe the articles of both legal systems that directly affect the payment of dividends by Mexican companies and the shareholders that receive them, and explain the main consequences of the 2014 Tax Reform.

Model Applied to the Generated Variables

With the purpose of avoiding biases in the results of our study, twenty-four companies have been considered and eleven firms were eliminated from the 35 of the IPC. Necessary data were not available for the eliminated companies. Of the companies that make up the sample, information was obtained from their audited financial statements found in the annual reports, consisting of:

Reform: which marks the before and after the entry into force of the tax reform.

TAX% isr: this variable expresses in percentage terms the increase or decrease in the payment of income tax.

CF to TAX: represents cash flows after taxes expressed in Mexican pesos.

Divp: it is our dependent variable. We want to observe if there are changes in this variable with respect to the aforementioned reform.

ROE: Return on Stockholders Equity indicates the return on shareholders' investment.

EBITDA: Earnings before interest, taxes, depreciation and amortization

Exchange Rate: Shows the exchange rates that were maintained during the period analyzed.

ROA: Return on Total Assets by its acronym in English.

RESULTS AND DISCUSSIONS

We begin by estimating the following model:

$$Divp_{it} = \alpha + \beta_1 Reforma_t + \beta_2 TAX\%isr_{it} + \varepsilon_{it} \tag{1}$$

Table 1 shows the results. The R2 of the regression by fixed effects is 0.1322, which shows a good adjustment of the variables for each firm. The variable Reform is presented in the model as a dichotomous variable, which has a level of significance of 0.011% with a negative effect after the tax reform. This is a global effect and not specifically related to the dividend policy. TAX%isr, with significance level of $p < 0.901$ shows that for every increase of \$ 90.10 in the payment of dividends there is an almost zero increase, that is to say 0.0000000692 pesos for income tax, It is worth mentioning that this variable only shows a behavior on the Income Tax and our analysis focuses on how the tax reform affects the payment of dividends. The results show the volume of dividend payments decreased considerably in 2014 compared to previous years.

Table 1: Econometric Model (Linear Regression)

Fixed-effects (within) regression	Number of obs	=	72
Group variable: BUSINESS	Number of groups	=	24
R-sq: within = 0.1322	Obs per group: min	=	3
between = 0.0001	avg	=	3.0
overall = 0.0733	max	=	3
corr(u_i, Xb) = -0.0022	F(2,46)	=	3.5
Divp	Coefficient	P> t 	
Reforma	-1.314714	**	0.011
	-2.65		
TAXisr	0.0000000692		0.901
	0.12		
_cons	2.226606	***	0.000
	5.25		

The model is a linear regression with fixed effects that shows the relation of dividends with the fiscal reform of 2014 and the taxes paid for income tax (ISR). Source: Own elaboration with data obtained from the Mexican Stock Exchange. Note: () significance at 10%, (**) Significance at 5%, (***) Significance at 1%*

Table 2 shows the main results. The 35 companies were studied for 3 years, 2013 before the tax reform, 2014 year when the fiscal reform started and 2015 after the fiscal year entry into force of the tax reform.

Table 2: Dividends Paid by Enterprises and Established Policy

	Business Quotation Key	Dividend Policy	Dividend Payments		
			2013	2014	2015
1	AC	It has established	3.00	-	1.75
2	ALFA	according to results	0.70	-	0.46
3	ALPEK	Annual payment	1.40	-	0.70
4	ALSEA	Annual payment	0.50	-	0.50
5	AMX	Two payment each year	0.22	0.24	0.56
6	ASUR	It has established	8.40	-	-
7	BIMBO	It has established	0.52	-	-
8	BOLSA	Annual payment	1.08	1.09	0.96
9	CEMEX	It has established	-	-	-
10	ELEKTRA	It has established	4.50	-	2.40
11	FEMSA	It has established	1.50	1.50	ND
12	GAP	It has established	S	S	S
13	GCARSO	It has established	4.00	0.80	0.84
14	GENTERA	It has established	1.00	-	0.76
15	GFINBUR	It has established	3.00	0.38	0.42
16	GFNORTE	percent of annual profits	1.56	0.25	0.73
17	GFREGIO	Residual policy	1.35	-	-
18	GMEXICO	It has established	0.98	0.91	0.98
19	GRUMA	It has established	-	1.50	1.60
20	IENOVA	It has established	-	-	-
21	KIMBER	Residual policy	1.32	1.40	1.48
22	KOF	No information	-	-	-
23	LAB	It has established	-	-	-
24	LALA	It has established	0.38	-	0.51
25	LIVEPOL	It has established	1.93	-	0.81
26	MEXCHEM	Residual policy	0.50	0.50	0.50
27	NEMAK	It has established	-	0.96	0.96
28	OHLMEX	It has established	-	-	-
29	OMA	It has established	Actions	Actions	Actions
30	PE&OLES	It has established	16.63	1.90	1.51
31	PINFRA	It has established	-	-	-
32	SANMEX	It has established	2.50	0.51	1.00
33	TLEVISA	It has established	0.70	-	0.35
34	VOLAR	It has established	-	-	-
35	WALMEX	It has established	0.92	1.38	1.84
Total dividends paid companies			28	15	26

Table 2 shows the companies that make up the CPI price and quotation index, the type of dividend policy that they declare in their annual reports and the amount paid for that concept during the years: 2013, 2014 and 2015 Source: Based on data obtained from the annual reports of each company.

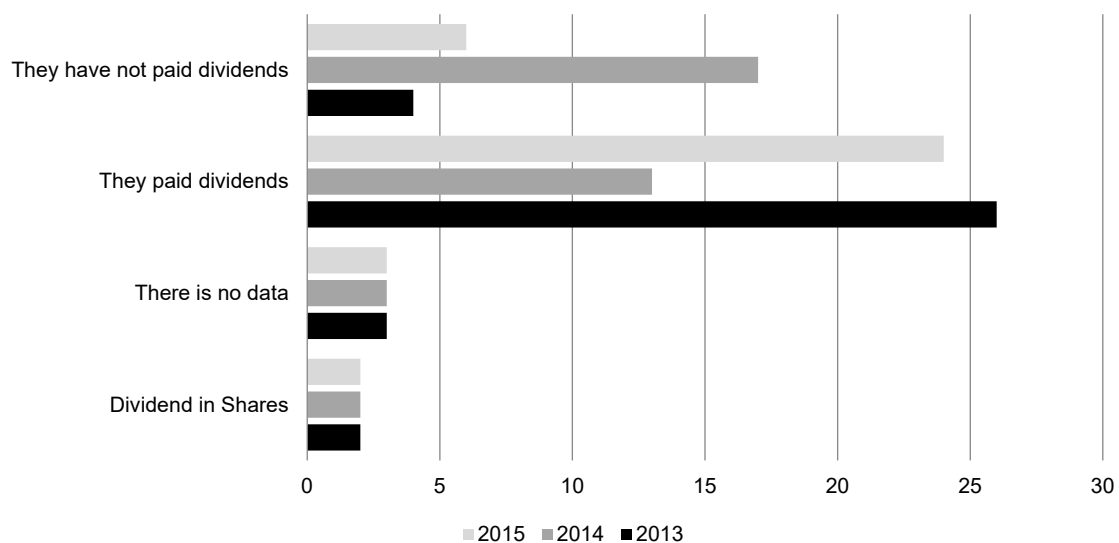
Table 2 shows that during the three years dividends have been paid in shares by two companies. For an additional 3 companies it was not possible to obtain data. Table 2 shows that 26 companies do not have a

dividend policy established and every year they pay dividends according to their generated profits; three companies established an annual dividend payment; one company established two dividend payments every year; three companies have established a policy based on the residual theory. That is to say that profits are first used to finance projects. If there is surplus is distributed as dividends to the shareholders.

It is important to note the fiscal reform of 2014 generated changed expectations among the executives of the companies. They appear to have changed their opinions on distributed dividends and the economic repercussions that would result both in the companies and in the shareholders who received them. There was a significant decrease in the number of companies that paid dividends in 2014. This is as expected in light of the 2014 tax reform.

Figure 1 shows that 35 companies were analyzed, which form the sample for calculating the IPC of the BMV. The analysis includes three years of data (2013, 2014 and 2015). Companies paid dividends as follows. In 2013, 28 companies paid dividends, with 26 in cash and 2 in kind (shares); 19 paid dividends in 2014 with 17 paying in cash and 2 in kind (shares); and 26 in 2015 with 24 in cash and 2 in kind (shares).. The number of companies that paid dividends in 2013 decreased significantly in 2014 and increased again in 2015.

Figure 1: Dividends Paid by the 35 Companies IPC



Source: Own elaboration with data obtained from Table 1

CONCLUDING COMMENTS

The objective of this work was to show the impact of the 2014 fiscal reform in Mexico, using data on dividends paid by the companies for 3 years (2013, 2014 and 2015) surrounding the Tax Reform. We use a regression econometric model. Some 26 of the 35 companies analyzed have not established a dividend policy. Each year they make a dividend payment based on the profits obtained. The number of companies that paid dividends in 2013 was 28 and in 2014 it was reduced to 19 returning to normalize in 2015 where 26 companies pay dividends.

The mercantile companies, (legal or moral persons) with the fiscal reform 2014 have had increases and decreases in tax obligations. However, the ISR rate has remained the same for said taxpayers. Individuals have been most affected by the reform because (1) the ISR rate in 2014 was raised to a maximum rate of 35% when in the 2013 fiscal year the highest rate was 30%; (2) when the individual has dividend income

you they have to accumulate them to their other income and pay an additional 10% which raises the ISR rate to 45%.

The main findings of this research work have been the following: The fiscal reform of 2014 did not send a good signal to the market. On the contrary, it generated negative expectations in the boards of directors and corporate governments of the companies. The number of companies that regularly paid annual dividends did so until 2013 and in the year 2014 many companies did not pay dividends as shown in the results presented here.

Due to the expectations generated by the information of the fiscal reform that would come into force in 2014, some companies advanced the payment of dividends at the end of 2013 to avoid an effect of the additional tax on dividends that came into force in 2014. The payment of advanced dividends at the end of 2013 has had other financial repercussions in the companies. For example, the stock price falls after the payment of dividends. In addition, some requested bank loans for the payment of dividends in cash, and have paid interests that are not tax deductible. This affected the liquidity and solvency ratios of these companies. Some companies lost the opportunity to integrate profitable investment projects due to the decapitalization by payment of advanced dividends.

The main limitations of the document are that the 35 companies studied are not all included in the econometric model because they do not have the complete information of some stations. In this document only the impact of the tax reform on dividends is analyzed. However future analysis can be applied to measure the impact on other variables such as cash flows, the value of companies and ROE. In our opinion, the tax authorities should procure mechanisms to broaden the base of taxpayers and not increase taxes more to captive taxpayers.

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PAYDAY LENDING REGULATIONS AND THE IMPACT ON WOMEN OF COLOR

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ABSTRACT

Payday loans, or small short-term loans that carry high fees, may provide a much-needed safety net for some consumers in need of quick cash for emergencies. However, data suggest that most payday loan borrowers become repeat users caught in a cycle of high-cost debt. Furthermore, empirical evidence suggests consistent overrepresentation of women of color, including many single mothers, among payday loan borrowers. Based on international human rights law, the U.S. has an obligation to remedy predatory economic practices such as a payday lending that have a disproportionately negative economic effect on women of color. Posing the issue of payday lending as a human rights issue can make an important contribution to public action on how to address the aftermath of the financial crisis and its impact on women of color.

JEL: K1, K4

KEYWORDS: Payday Loans, Women of Color, Human Rights

INTRODUCTION

A large number of Americans are literally living paycheck to paycheck (Johnson, 2003). They're one unplanned expense away from being in financial distress (Johnson, 2003). Twenty-six percent of Americans have no emergency savings and forty-one percent say their top financial priority is simply staying current with their expenses or getting caught up on their bills (Cox, 2014). While Americans continue through a long economic recovery process, trying to rebuild from the impact of the recession, women of color face an especially arduous battle as their economic futures have been undermined by inequality (NWLC, 2011). Despite expansion in the availability of credit, evidence suggests that women of color are disproportionately affected by predatory lending practices (NCRW, 2008). Women of color are particularly at risk for abuse presented by payday loans: short-term advances carrying extremely high interest rates that are expected to be paid from the borrower's next payroll check. Based on international human rights law, the U.S. has an obligation to remedy predatory economic practices such as a payday lending that have a disproportionately negative economic effect on women of color. Not only do international treaties call on the U.S. to address women's access to and control over economic and financial resources (ICESR, 1966; CEDAW, 1979; CERD, n.d.), but they also call the U.S. to address instances of multiple discrimination, where the interaction of multiple grounds or factors, such as race and gender, adversely impact a set of people. This document is organized into distinct sections, with evidentiary support and a logical progression of ideas for a clear transition of information. Sections include why payday lending is problematic, existing state regulations, existing federal regulation, Women of Color at risk, the United States duty to protect, and a conclusion.

WHY PAYDAY LENDING IS PROBLEMATIC

Lenders advertise payday loans as small-dollar, short-term means for obtaining fast cash to get through a financial emergency. These lenders cater to consumers with little to no borrowing alternatives by offering quick cash without asking for the same proof of ability to repay that banks require. Under such circumstances, payday lenders can certainly serve individuals in real financial distress who may not be adequately served by more traditional sources of consumer lending (Elliehausen, 2009). For those living paycheck to paycheck, access to quick, short-term credit could make the difference between staying financially afloat and having one's heat turned off (Elliehausen, 2009). In fact, in the face of financial or economic shocks, payday loans allow households to smooth their income and consumption (Morse, 2011). Payday loan debt is of course problematic for all consumers, but is particularly troubling for women of color. Debt impacts not only women of color's finances, but also their physical (Associated Press, 2008) and emotional health (Kuchar, 2014), which in turn has an impact on their children and families. Communities also bear burdens from short-term fringe lending. One researcher testing the effects of payday loans found that households with local access to payday loans experience a 16% increase in economic hardship related to utilities, rent, and medical bills (Melzer, 2014). This has a spillover effect on taxpayers who indirectly fund such households through government sponsored assistance programs (Melzer, 2014).

Existing State Regulation

Other than restrictions to military borrowers (Consumer Finance Protection Bureau, 2014; Department of Defense, 2006) and certain fee disclosure requirements, there are few federal guidelines regulating the payday lending industry, leaving payday lending laws mainly to the states. States take various approaches to payday lending regulation (The Pew Charitable Trust, 2014). Some require all licensed short-term lenders to comply with state usury laws—the same laws that regulate banks (Morgan-Cross & Klawitter, 2011). These rates are often under 30% APR, which effectively bans payday lenders from operating (Morgan-Cross & Klawitter, 2011). Other states allow exemptions from usury laws for short-term lenders, but cap interest rates at a point that makes it unprofitable for payday lenders to operate (Morgan-Cross & Klawitter, 2011). A remaining 33 states have implemented a variety of regulations on short-term lenders. All of these states limit maximum loan amounts (\$300–\$1,000); additional regulations include term requirements, interest rate and fee limits, and loan rollover restrictions (Morgan-Cross & Klawitter, 2011). Six states (Delaware, Idaho, Nevada, South Dakota, Utah, and Wisconsin) do not limit interest rates or fees for short-term loans (Morgan-Cross & Klawitter, 2011). Although states may prohibit or regulate payday lending, internet lending and lenders' collaboration with sovereign tribes has created difficulties for state regulators (Kieler, 2014). The Internet allows payday lenders to reach people living in cities or states where their loans are illegal (Wagner, 2013). Many online lenders are located on Indian reservations to avoid complying with consumer protection laws (Lifsher, 2009).

The rent-a-bank practice has also thwarted state attempts to regulate payday lending. Rent-a-bank refers to partnerships between Federal Deposit Insurance Corporation (FDIC) banks and payday lenders to offer agent-assisted loan programs. Payday lenders partner with national banks chartered in states that do not cap interest rates on small loans. They then export rates to other states, regardless of whether those other states have usury laws or rate ceilings that apply to payday lending (Karger, 2005). Rent-a-bank is highly effective and the most significant barrier to effective regulation at the state level; it operates across the nation to circumvent state rate capping legislation (Tanoue, 2000). In response, states have implemented reform measures with varying degrees of success (Johnson, 2003). In the 2014 legislative session to date, 24 states have pending legislation regarding payday lending (Cheek, 2014), while California, Florida, Idaho, Louisiana, Maine, Oklahoma, Rhode Island, Utah and Wyoming enacted payday lending legislation (Cheek, 2014).

Existing Federal Regulation

While federal regulation has tried to guard consumers where state legislation has fallen short (U.S. Congress, 2009), the CFPB has attempted to educate and protect consumers in their dealings with financial service providers (Consumer Finance Protection Bureau, 2018). President Obama nominated Richard Cordray as the director of the CFPB on July 18, 2011 (The White House, 2011). In a statement, the president said: "American families and consumers bore the brunt of the financial crisis and are still struggling in its aftermath to find jobs, stay in their homes, and make ends meet. That is why I fought so hard to pass reforms to fix the financial system and put in place the strongest consumer protections in our nation's history. Richard Cordray has spent his career advocating for middle class families, from his tenure as Ohio's Attorney General, to his most recent role as heading up the enforcement division at the CFPB and looking out for ordinary people in our financial system (The White House, 2011). The CFPB examines nonbanks in the same way it examines banks, using a combination of required reports, document reviews and on-site examinations (Consumer Finance Protection Bureau, 2018). In a January 5th, 2010 speech at Brookings Institution, Cordray said that nonbank activities are important markets, providing valuable services to customers who lack access to other forms of credit (Corday, 2012). He has noted that nearly 20 million U.S. households use payday lenders, paying about \$7.4 billion in annual fees (Corday, 2012). Cordray has said since most of these nonbank businesses are not used to any federal oversight, the new supervision program may be a challenge for them, "but we must establish clear standards of conduct so that all financial providers play by the rules" (Clarke, 2012).

The CFPB has made clear its interest in curbing payday loans (Cocheo, 2013). Cordray has explicitly considered economic rights as civil rights: "If we are to attain a true and full understanding of civil rights in this country, it must encompass not only political and legal rights, but also economic rights...The movement and aspiration toward equality in American life was almost as fundamentally economic as it was political and legal. This was well understood in the African American community, as reflected in Dr. King's 1963 March on Washington for Jobs and Freedom and his later involvement in the "Poor People's Campaign" for economic justice. In the end, it seems to me that these three categories of rights – political, legal, and economic – are inextricably intertwined in our society. Because we chose to build our political structure around a free market economy, we inevitably found it necessary to supplement our bare political and legal equality with some more robust measures of economic equality and economic rights as well. And I have also sought to locate the work of our new federal agency against the backdrop of the kind of financial oversight needed to vindicate those rights in today's economic and social climate. At the Consumer Bureau, we are keenly aware of our responsibility to do whatever we can, within our authority, to combat the persistent evil of discrimination, and we understand the importance of doing this work steadily and tenaciously" (Corday, 2014). The CFPB may also restrict "unfair, deceptive, or abusive acts," that are likely to cause substantial injury to consumers where this injury is not outweighed by countervailing benefits to consumers or competition (Consumer Finance Protection Bureau, 2010). Dodd-Frank defines abusive to include a subjective dimension, which allows for contextual considerations that may include race and gender (White and Williams, 2018). Some groups have challenged the CFPB's constitutionality (Scarcella, 2013), the appointment of Richard Cordray (Scarcella, 2013), and Dodd-Frank as favoring large lenders over smaller business that cannot shoulder the cost of increased regulation. This evidences the pushback the CFPB will encounter as it seeks to regulate payday lending. Nonetheless, the CFPB may issue regulations under The Truth in Lending Act (TILA). TILA was enacted for the purpose of "assuring a meaningful disclosure of credit terms so that the consumer will be able to compare more readily the various credit terms available to him and avoid the uninformed use of credit (Cornell Law, 2018). It is deemed the "cornerstone of consumer credit legislation" (Nehrf, 1991). TILA does not generally regulate what terms a creditor must offer, but requires that those terms be uniformly disclosed to the consumer and tries to help consumers make intelligent choices from available sources of credit (Cornell Law, 2018). For example, payday loan employees are not required to orally volunteer the applicable APR for a loan, but if a customer requests this information, the employee is required to disclose the correct APR (Cronell Law,

2018). Before the loan is consummated, payday lenders must provide written information about the loan, including fees, repayment due date, and APR (Cornell, Law 2018). Payday lenders are also required to disclose their fees as an APR if they choose to advertise their rates (Cornell Law, 2018). The CFPB has also issued regulations under Equal Credit Opportunity Act (ECOA) (CFPB, 2018), which prohibits creditors from discriminating against an applicant on the basis of race, color, sex or marital status (Cornell Law, 2018). These regulations, known as Regulation B, provide the substantive and procedural framework for fair lending (Cornell Law, 2018). The ECOA has two principal theories of liability: disparate treatment and disparate impact. Disparate treatment occurs when a creditor treats an applicant differently based on a prohibited basis such as race or national origin (Consumer Finance Protection Bureau, 2018). Disparate impact occurs when a creditor employs facially neutral policies or practices that have an adverse effect or impact on a member of a protected class unless it meets a legitimate business need that cannot reasonably be achieved by means that are less disparate in their impact (Consumer Finance Protection Bureau, 2018).

WOMEN OF COLOR AT RISK FOR ABUSE PRESENTED BY THE PAYDAY LOAN INDUSTRY

Women of color are particularly at risk for abuse presented by the lending industry, predatory loans, and more specifically, payday lending, as economic insecurity disproportionately affects their race and gender (Kerby, 2013). These disparities do not just affect them, but their families and communities as well. As a result of the deep penetration into these vulnerable markets by some predatory payday lenders, the consumer credit market has become so deeply bifurcated along racial lines that some critics have described it as a modern form of financial apartheid (Drysdale & Keest, 1999).

The U.S. Has a Duty to Protect Against Human Rights Abuses by Payday Lenders

Human rights treaties, mechanisms and instruments have addressed the issue of women's access to and control over economic and financial resources. By either signing or ratifying these treaties, the U.S. has acknowledged that policies and programs should be formulated to promote equal access to and control over financial and economic resources (United Nations, 2000). The International Covenant on Economic, Social and Cultural Rights (ICESR) states that parties to the Convention must ensure the equal right of men and women to the enjoyment of all economic, social and cultural rights (ICESR, 1966). The ICESR also recognizes the right of everyone to "the continuous improvement of living conditions" (ICESR, 1996). CEDAW requires parties to take all appropriate measures to eliminate discrimination against women and ensure the practical realization of the principle of the equality of women and men in the economic field, among other fields (CEDAW, 1979). States are obligated not only to refrain from engaging in acts of discrimination, but also to eliminate discrimination against women by any person, organization or enterprise (CEDAW, 1979). While the U.S. has not ratified either treaty, as a signatory to the ICESCR and CEDAW, the U.S. is obliged to "refrain from acts which would defeat the object and purpose" of the treaty (United Nations, 1980). In addition, the U.S. has signed and ratified CERD and has agreed to be bound by its requirements (CERD, 1966). CERD requires the U.S. to eliminate both intentional discrimination and discrimination in effect (CERD, 1966). Article 2(2) provides that:

"State parties shall, when circumstances so warrant, take, in the social...economic...special and concrete measures to ensure the adequate development and protection of certain racial groups or individuals belonging to them, for the purpose of guaranteeing them the full and equal enjoyment of human rights and fundamental freedoms (CERD, 1966). Thus, the language of the Convention and the governing comment depict economic development as a positive right (Weissbordt & de la Vega, 2007) owed to all groups and which should be protected for groups that experience systematic discrimination. The international community has made strong commitment to gender equality, further implicating the U.S.'s obligation to curb the predatory economic practices that place women of color at risk of economic harm. The Platform for Action of the Fourth World Conference on Women highlighted the differences in women's and men's access to, and opportunities to exert power over, economic structures in their societies (United Nations,

1995). The Platform recommended that Governments and the international community analyze policies and promote from a gender perspective more equitable distribution of productive assets, wealth, opportunities, income, and services (United Nations, 1995).

The Commission on the Status of Women called on Member States, including the U.S., to facilitate the further development of the financial sector to increase women's access to and control over savings, credit and other financial services, through incentives and the development of intermediaries that serve the needs of women (United Nations, 2005a). At the 2005 World Summit, global leaders resolved to promote gender equality and eliminate pervasive gender discrimination by, inter alia, ensuring equal access of women to productive assets and resources, including credit (United Nations, 2005b). The Post 2015 Global Development Goals sub-goal (2c) calls for equal rights for women to open bank account (United Nations, 2018a) implying that financial services and financial inclusion are a necessary part of empowerment of women. Finally, in the Doha Declaration on Financing for Development, adopted in 2008, global leaders reaffirmed their commitment to eliminating gender-based discrimination in all forms, including in the financial markets. Member States resolved to promote women's rights, including their economic empowerment; effectively mainstream gender perspectives in law reforms, economic programs; and give women full and equal access to economic resources (United Nations, 2018b).

In addition to addressing gender discrimination, the U.S. also has an obligation to adopt and implement appropriate measures to address multiple discrimination (CEDAW, 2006). Multiple discrimination broadly refers to discrimination based on the interaction of multiple grounds or factors. Under Article 2 of CEDAW States are called upon to eliminate and protect against discrimination "in all its forms," a phrase which "anticipates the emergence of new forms of discrimination." New forms include those resulting from the compounding or intersection of established grounds and factors. Compounded discrimination refers to the layering of analytically separable grounds or factors to aggravate or add to the risks or burdens of discrimination (CEDAW, 2010). Intersectional discrimination refers to multiple grounds or factors interacting to create a unique or distinct risk or burden of discrimination.

The Committee on Economic, Social and Cultural Rights has noted the importance of addressing intersectional discrimination in its general comment No. 16 (2005): "Many women experience distinct forms of discrimination, due to the intersection of sex with such factors as race, color, language, religion, political and other opinion, national or social origin, property, birth, or other status, such as age, ethnicity, disability, marital, refugee or migrant status, resulting in compounded disadvantage" (Committee on Economic, Social and Cultural Rights, 2005). Human rights instruments' recognition of the existence of multiple, compound and intersectional discrimination provides thus one more argument in favor of developing the U.S.' obligation to help place women of color on equal footing in economic life in the U.S.

Compliance with international human rights treaties is not merely a normative nudge on the executive branch to address the discriminatory impact of payday lending. Rather the U.S. has a duty to affirmatively address the issue. The human rights approach under CERD, for example, requires the CFPB to move past the dilemma of proving intent to discriminate, to focusing on remedial action to address discriminatory impacts (CERD, 1966). As recognized by CERD in its Concluding Observations on the state report of the U.S., the U.S. has a legal obligation to take measures of "positive action": "The Committee emphasizes that the adoption of special measures by State parties when the circumstances so warrant, such as in the case of persistent disparities, is an obligation stemming from article 2, paragraph 2, of the Convention (CERD, 2001).

Where racial disparities exist, CERD unequivocally requires the U.S. to take actions that produce visible results (CERD, 1966). Once a violation is identified, CERD allocates responsibility to "amend, rescind, or nullify the policies" to the government (CERD, 2001). Furthermore, it creates a duty for governments at the federal, state, and local levels to take appropriate legislative action to bring to an end discrimination

(CERD, 2001). The statutory definition of discrimination under civil rights law in the U.S. are not in full alignment with CERD obligations, but policy initiatives by the CFPB could provide opportunities to harmonize the doctrines and bring the U.S. into full compliance with CERD and other international human rights norms.

CONCLUSION

Data suggest that most payday loan borrowers become repeat users caught in a cycle of high-cost debt. Furthermore, evidence indicates consistent overrepresentation of women of color, including many single mothers, among payday loan borrowers. This takes a toll not only on these women and their family, but all society. Despite improvements to federal and state policies in the wake of the financial crisis, including the establishment of the CFPB and the recently increased attention by other financial industry regulators to the importance of adequate consumer protections, and despite the hope that most financial service providers would heed the lessons of the financial crisis, women of color and other economically vulnerable populations are still being subjected, on a widespread basis, to predatory and deceptive lending practices, including in the market for payday lending. As dictated by its international human rights law obligations, the U.S. must continue to regulate the payday loan industry and seize the opportunity to legislate offered by the CFPB. Foundational is the U.S.' obligation to address double discrimination and disparate impact discrimination, which payday loans arguably encourage. The U.S must continue to monitor and collect data on the industry and women of color as consumers. Regulation must work to provide low-income women of color with access to a fair form of micro-finance, and more broadly, to help them to become full economic participants in the U.S.

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