Accrual Earnings Management Prior to Delisting

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Surprisingly, compared to going public, delisting is far less studied though it is of utmost interest to management, investors and creditors of the affected firms. We investigate whether a pending delisting is a potential incentive for earnings management - specifically, whether firms that delist from a major stock exchange manage earnings using discretionary accruals in the year prior to delisting. Our results suggest that involuntarily delisted firms engage in earnings management prior to delisting and use more positive discretionary accruals to boost their reported earnings than do voluntarily delisted firms.

INTRODUCTION

Delisting is not a new or rare occurrence. From 1995 to 2005, more than 7,300 firms delisted from US stock exchanges, with nearly half of these being involuntarily delisted by their respective exchanges. The supposed reasoning behind these monumental business decisions is well documented in government, industry, and academic studies (Macey, O'Hara, & Pompolio, 2008; Marosi & Massoud, 2007; Martinez & Serve, 2011). The Congressional Research Service released a study in January 2007 addressing wide-spread criticism that recent US regulations, predominantly Sarbanes-Oxley (SOX) related, have created incentives for firms to list initial public offerings on foreign markets and/or to delist from US stock exchanges altogether. While acknowledging the financial burden of SEC regulations as a potential reason for delisting, the report stresses the effects of the abundance in private equity investment in prior years as a consideration. In addition, depressed domestic and foreign market conditions are sighted as culprits for more recent delistings. In 2008, the New York Stock Exchange (NYSE) and the NASDAQ delisted 139 firms for violating listing standards or going bankrupt, the highest number of involuntary delistings since 2003 (Bessette, Biles, Arhart, & Heard, 2006; Jickling, 2007; Krantz, 2008; Plourd, 2009). NASDAQ reported in 2005 that 26 % of their delisted firms had not met exchange requirements (i.e., failed to comply with financial criteria such as to maintain a minimum share price and/or failed to file required SEC disclosures on time). Most of the remaining 74 % of delisted firms were involved in a change of ownership (e.g., mergers, acquisitions, leveraged buyouts, or went private). The NYSE reported similar statistics for 2005 (Jickling, 2007).

Consequences of delisting are extensive and documented by extant literature (Krantz, 2008; Li, Zhang, & Zhou, 2006; Martinez & Serve, 2011; Plourd, 2009; Sanger & Peterson, 1990; Shumway, 1997; Shumway & Warther, 1999). From a negative viewpoint, results suggest that when a firm's stock is delisted, the firm's share price falls, revenues decrease, and cash flow drops. Reasons noted for this downside to delisting include: a loss of investor faith in the stock; a diminished aura of fair and reliable financial reporting which translates into investment risk; the recognition that many institutional investors are restricted from researching stocks not listed on major exchanges; and increased borrowing cost combined with additional difficulty raising capital. From the opposite viewpoint, the positive aspects of delisting include: significant cost savings due to a reduction or elimination of SEC regulatory costs and exchange listing fees; audit and legal expenses are typically reduced; managers and owners benefit from increased private control and decreased outside scrutiny. These positive and negative effects of delisting provide strong incentives for managers of firms which are caught up in an involuntary delistment to manipulate earnings as they are the least likely to be adequately prepared to handle the consequences of this major event. Therefore, the current research investigates whether pending delisting is a potential incentive for earnings management - specifically, whether firms that delist from a major stock exchange manage earnings using discretionary accruals in the year prior to delisting.

Our research is motivated by prior research that documents the significant impact earnings management (EM) has on a comprehensive list of key groups that heavily rely on firm earnings as a decision making and/or assessment tool. In addition, evidence from recent UK studies which examine firms beyond the US regulatory framework suggest that EM is of significant concern to global accounting standard setters, as well as the global market (Athanasakou, Strong, & Walker, 2009; Gore, Pope, & Singh, 2007). Overall, our study provides new insights into how a firm's involuntary delisting from a major US stock exchange may be associated with EM in the year prior to the event. Our analysis is based on a sample of 274 firms that delisted from the NYSE and the NASDAQ in 2008 and 2009. Results suggest that involuntarily delisted firms managed earnings and used more positive discretionary accruals to report enhanced performance as compared to voluntarily delisted forms.

Our findings suggest a formidable incentive for a positive manipulation of earnings which, to our knowledge, extant literature has not considered: involuntary delisting. As such, this study adds to the portfolio of EM literature which has been of continual interest to researchers, regulators, investors, and other key groups around the world for several decades.

Our paper is organized as follows: Section 2 discusses background and develops our hypotheses, Section 3 describes the sample selection and data, and Section 4 presents the research methodology and results from our analysis. Conclusions, limitations, and suggestions for future research are in Section 5.

BACKGROUND AND HYPOTHESES DEVELOPMENT

Consequences of Delisting and Incentives for Earnings Management

The word "delisting" does not typically inspire a sense of jubilation, admiration, and potential promise as compared to the term" going public" – especially for the affected firm's management, investors, and stockholders. Extant financial press and academic literature suggest that firm reputation, cash flow, and stock prices will decrease once a firm delists, whether voluntarily or involuntarily (Junnarkar, 2000). In a recent examination of over 1,000 NASDAQ firms delisted in 1999-2002, Harris, Panchapagean, & Werner (2008) suggest that market quality deteriorates significantly after the delisting. Specifically, share volume declines by two-thirds, quoted spreads and effective spreads almost triple, and volatility more than triples. Marosi & Massoud (2007) examined the impact of deregistration announcements and suggests that, on average, stockholders suffer large and significant wealth losses from firms' decisions to go dark. Also, these same stockholders are left holding significantly less liquid shares. In addition, by not having public listing status, the firm may lose (for example) the advantage of lower-cost equity financing, product position within the market, or become less able to diversify against risk (Chemmanur & Fulghieri, 1999; Chemmanur & He, 2011; Shah & Thakor, 1988). (Please refer to prior literature such as Leuz, Triantis, & Wang (2008) for more in-depth coverage of delisting consequences.)

While delisting has been shown in existing literature to trigger a combination of both positive and adverse economic effects for firms and their stockholders, involuntarily delisted firms presumably perceive that the advantages of remaining listed outweigh the disadvantages of not having their stock traded on an exchange. It is also reasonable to expect that managers of an involuntarily delisted firm have advance expectations that their firm is nearing the threshold of being delisted by their "chosen" stock exchange and, therefore, have substantial opportunity to attempt control of the situation. Listing requirements for the two major stock exchanges in the US are similar, though not identical (details are available on the websites of both the NYSE and NASDAQ). Three common requirements are: maintaining a minimum stock price, holding revenues above a minimum point (specified allowances are typically made for short periods of time), and timely filing of all required SEC reports. The first two requirements provide an incentive for managers of firms facing involuntarily delisting to make accounting choices that increase the probability of achieving these minimum levels. By managing earnings, these managers may be able to delay or stop the threat of an impending involuntary delisting from a major stock exchange.

Earnings management has received significant attention in the popular press and academic accounting literature (McNichols 2000). EM is generally defined as a purposeful intervention (by management) in the external financial reporting process. The reasons for this intervention are numerous and well summarized by Healy & Wahlen (1999) as '…the use of judgment in financial reporting and in structuring transactions to alter financial report to either (1) mislead some stakeholders about the underlying economic performance of the company or (2) to influence contractual outcomes that depend on reported accounting judgments.

Extant literature has identified numerous motivations for managers to specifically engage in EM by manipulating financial earnings (e.g., potential litigation awards; debt covenant violations and renegotiations; strategic use of corporate philanthropy programs; pending regulatory changes; bonus targets, stock-based compensation and budget expectations; and earnings forecasts) (Dechow & Skinner, 2000; Defond & Jiambalvo, 1994; Hall & Stammerjohan, 1997; Jones, 1991; Kasznik, 1999; Petrovits, 2006; Saleh & Ahmed, 2005). As a compliment to this line of research, there is an abundance of evidence which suggests that EM precedes and/or accompanies many financial activities such as seasoned security offerings, debt contracting, financial reporting restatement, and venture capital financing (Beuselinck, Deloof, & Manigart, 2005; Bharath, Sunder, & Sunder, 2008; Ettredge, Scholz, Smith, & Sun, 2010; Jo & Kim, 2007).

Hypotheses Development

Delisting is a major financial activity which potentially encompasses each and every one of the financial and political incentives (sometimes in combination) determined by prior literature as EM motivators. Both voluntarily and involuntarily delisted firms potentially have incentives to manage earnings. However, firms which voluntarily delist have considered all of the consequences of a pending delisting and presumably believe that the positive aspects outweigh the negative and have effectively promoted the transition to their stockholders and creditors. Firms faced with an involuntary delisting are presumably attempting to the best of their ability (and available options) to stay listed.

Prior research has not examined this issue of delisting as a financial activity which may be associated with EM: therefore, based on the guidance of prior studies and the discussion provided above, we propose the following research question and related hypotheses.

> *Research Question: Is a pending involuntary delisting a motivator for earnings management?*

We believe prior research has repeatedly shown that when managers are faced with negative consequences (for themselves, their firms, and/or their stockholders) which can be stopped or delayed by the manipulation of earnings, that they are highly motivated to engage in EM (as measured by abnormal discretionary accruals). We expect managers to perceive involuntary delisting a forerunner of negative

outcomes and that they will struggle to forestall this event by engaging in EM and therefore we present our first hypothesis:

> *H1: Involuntarily delisted firms have positive discretionary accruals in the year prior to delisting.*

It is feasible that voluntarily delisting may also motivate minimal levels of EM activity as affected firms attempt to spread "good news" of higher earnings when moving into a new stage of their corporate life cycle. But we believe that managers of these firms have the benefit of corporate planning, marketing, and other positive aspects to "pitch" to their shareholders and creditors, thus diminishing their need to engage in EM. It is the managers of the involuntarily delisted firms fighting to not lose their public presence on the national stock exchange of their choice who have the greatest motivation to engage in EM. Therefore, we present our second and final hypothesis:

> *H2: Involuntarily delisted firms have greater discretionary accruals in the year prior to delisting than voluntarily delisted firms.*

RESEARCH METHODOLOGY

According to our first hypothesis, we expect firms to manipulate earnings in the year prior to delisting in order to avoid being delisted. Following the same approach used by Guenther (1994) to investigate H1, we run model (1) stated below using the data of involuntarily delisted firms in two years before delisting, the year prior to delisting and in the year of delisting respectively. The intercept of this regression (β_0) represents the mean prediction of discretionary accruals, after controlling for the other incentive factors contributing to managerial earnings manipulation. A positive and significant intercept indicates that the sample firms had positive discretionary accruals for that year.

$$DA_{i,t}=\beta_0 + \beta_1 CFO_{i,t} + \beta_2 Loss_{i,t} + \beta_3 Leverage_{i,t} + \beta_4 Growth_{i,t} + \beta_5 Logasset_{i,t} + \varepsilon \quad (1)$$

Where, for firm i and year t,
DA= discretionary accruals;
CFO = cash flows from operations deflated by total assets at beginning of the year;
Loss= 1 if the sample firm incurs a loss, and 0 otherwise;
Leverage = long-term debt deflated by total assets at beginning of the year;
Growth = market-to-book ratio; and
Logassets = natural logarithm of total assets at beginning of the year.

Our second hypothesis suggests that involuntarily delisted firms are more likely to engage in earnings management and use more positive discretionary accruals to boost performance compared to voluntarily delisted firms in the year prior to delisting. We use both univariate and multivariate tests to investigate the difference in earnings management behavior between these two groups of firms in the year prior to delisting. We use the following regression model (model 2) for the multivariate test:

$$DA_{i,t}=\alpha_0+\alpha_1 Delist_{i,t}+\alpha_2 CFO_{i,t-1}+\alpha_3 Loss_{i,t}+\alpha_4 Leverage_{i,t}+\alpha_5 Growth_{i,t}+\alpha_6 Logasset_{i,t}+\varepsilon_{i,t} \quad (2)$$

Where, for firm i and year t,
Delist = 1 for involuntarily delisted sample firms, and 0 otherwise;

In model (2), the indicator variable *Delist* takes a value of 1 if the sample firm is involuntarily delisted, and 0 otherwise. This variable evaluates the difference in earnings management behavior between involuntarily delisted firms and voluntarily delisted firms. Consistent with our second

hypothesis, we predict *Delist* to be positive, that is, managers of involuntarily delisted firms tend to take larger positive discretionary accruals to improve firms' performances in order to avoid being delisted.

We estimate discretionary accruals using the cross-sectional Modified Jones Model (Jones, 1991, Dechow, Sloan, & Sweeney, 1995). Kothari et. al. (2005) suggest that potential measurement errors in discretionary accruals may correlate with industry membership, growth, or performance, thus we include ROA as an additional independent variable in the model to adjust discretionary accruals for performance. The following regression model is estimated by industry and year. We delete an industry if there are fewer than 10 observations in the industry. Discretionary accruals (DA) are estimated as the difference between reported total accruals and fitted values of total accruals (nondiscretionary accruals) using coefficient estimates from model (3):

$$TA_{i,t} = \beta_0 (1/A_{i,t-1}) + \beta_1(\Delta SALES_{i,t} - \Delta REC_{i,t})/A_{i,t-1} + \beta_2 (PPE_{i,t}/A_{i\ t-1}) + \beta_3 ROA_{i,t} + \varepsilon_{i,t} \quad (3)$$

Where, for firm i and year t,
TA = total accruals deflated by total assets at beginning of the year;
Total accruals = net income – operating cash flows;
A= total assets at the beginning of the year;
ΔSALES= change in net revenues from year t-1 to year t;
ΔREC= change in accounts receivables from year t-1 to year t;
PPE = gross property, plant, and equipment; and
ROA = return on assets.

In both model (1) and (2), we also include other variables to control for possible incentives, or disincentives, to manage earnings. We include *CFO* in the model, because operating cash flows and accruals exhibit a strong negative correlation, that is, firms with strong operating cash flow performances are less likely to use income increasing discretionary accruals to manipulate earnings (Dechow, 1994; Becker, DeFond, Jiambalvo, & Subramanyam, 1998). We include an indicator variable for losses (*Loss*) to account for managers' incentives to avoid missing earnings benchmarks (Burgstahler & Dichev, 1997; Graham, Harvey, & Rajgopal, 2005). Burgastahler & Dichev (1997) document the existence of a discontinuity around earnings threshold (zero earnings) with the evidence that significantly larger numbers of firms report earnings directly to the right of a benchmark, while significantly fewer report earnings immediately to the left of the benchmark. Graham et. al. (2005) surveyed top management and report that the desire to meet earnings benchmarks is a high priority for executives. They report that managers have a strong desire to meet earnings benchmarks in order to build credibility, to enhance their reputations, and to convey future growth prospects. DeFond & Jiambalvo (1994) document that managers have incentive to use discretionary accruals to meet certain debt covenant requirements and this incentive is positively related to firms' leverage levels. Therefore, we include *Leverage* to reflect the incentive to manage earnings upward to avoid violating debt covenants. Finally, we include *Logasset* to proxy for potential political costs and *Growth* because high-growth firms tend to have higher abnormal accruals (Warfield, Wild, & Wild, 1995).

SAMPLE SELECTION AND DATA SOURCES

The empirical analysis is conducted based on a sample of firms that are delisted from the NYSE and the NASDAQ in 2008 and 2009. Table 1 describes our sample selection procedure. We start with 1,867 firms filing delisting notifications in 2008 and 2009 (SEC Form 25 for voluntary and Form 25-NSE for involuntary). We exclude 1,393 firms, which filed delisting notifications due to reasons other than common stock delisting (e.g., warrant expirations). We eliminate 52 regulated firms (i.e., utilities) and financial firms from the sample, because these firms are affected by unique institutional and regulatory factors (e.g., Ittner et al., 1997). We also exclude 148 firms without sufficient data in CompuStat for calculating discretionary accruals and other control variables. Finally, we winsorize the top and bottom 1

% of related variables in the models to eliminate the effect of outliers. This procedure yields a final sample of 274 firm observations, 167 involuntarily delisted firms, and 107 voluntarily delisted firms, respectively. A distribution of the sample across four-digit SIC codes is also provided.

TABLE 1
SAMPLE SELECTION AND SAMPLE DISTRIBUTION ACROSS INDUSTRY

Panel A: Sample selection	
	Sample firms
Total firms which filed Form 25 or 25-NSE during 2008 and 2009	1,867
Less: firms with filings due to reason other than common stock delistings	1,393
Less: firms in the regulated industries	52
Less: firms without sufficient data in CompuStat for calculating discretionary accruals and other control variables.	148
Final sample	274

Panel B: Distribution of sample across four-digit SIC codes		
SIC	Industry Description	Sample firms
1000-1999	Mining, Oil and Construction	30
2000-2999	Light Industry	72
3000-3999	Manufacturing	95
5000-5999	Merchandising	27
7000-	Other services	50
Total		274

Regulated industries refer to financial institutions (SICs between 6000 and 6999) and utilities (SICs between 4000 and 4999).

Descriptive statistics for the dependent and independent variables are presented in Table 2. Details regarding the methodology behind the selection of these variables are addressed in the next section. Panel A covers the total sample of 274 firms. Panel B shows statistics related to the sample of involuntarily delisted firms (167 firms) and Panel C shows the same information for voluntarily delisted firms (107 firms). The mean, standard deviation, 25% percentile, median, and 75% percentile statistics are provided for each of these variables, except for Delist which relates only to the total sample (Panel A). Select details are presented at this point with full details provided in Table 2.

Estimated residuals (DA) are noted in each of these panels. The mean (median) for the total sample, involuntarily delisted sample, and voluntarily delisted sample are 0.039 (-0.019), 0.086 (-0.001), and 0.034 (-0,054). The standard deviations for DA in the three samples are: 0.290, 0.320, and 0.217. Cash flows from operations (CFO) deflated by total assets is also noted in each of these panels. The total sample, involuntarily delisted sample, and voluntarily delisted sample CFO means are -0.346, -05.49 and -0.030. Statistics are also provided for the additional key variables: Loss, Leverage, Growth, and Logassets – are all defined in the table.

TABLE 2
DESCRIPTIVE STATISTICS FOR DEPENDENT AND INDEPENDENT VARIABLES

Panel A: Total sample firms (n=274)					
Variables[1]	Mean	Std. Dev.	25% Percentile	Median	75% Percentile
DA	0.039	0.290	-0.125	-0.019	0.133
Delist	0.609	0.489	0.000	1.000	1.000
CFO	-0.346	1.374	-0.282	-0.000	0.088
Loss	0.675	0.469	0.000	1.000	1.000
Leverage	0.223	0.373	0.000	0.064	0.345
Growth	2.058	2.673	0.927	1.252	1.854
Logasset	4.664	2.310	3.012	4.363	6.303
Panel B: Involuntarily delisted sample firms (n=167)					
Variables	Mean	Std. Dev.	25% Percentile	Median	75% Percentile
DA	0.086	0.320	-0.102	-0.001	0.218
CFO	-0.549	1.713	-0.476	-0.055	0.055
Loss	0.796	0.404	1.000	1.000	1.000
Leverage	0.282	0.444	0.000	0.106	0.385
Growth	2.127	2.897	0.945	1.234	1.818
Logasset	4.649	2.553	2.493	4.146	6.674
Panel C: Voluntarily delisted sample firms (n=107)					
Variables	Mean	Std. Dev.	25% Percentile	Median	75% Percentile
DA	-0.034	0.217	-0.148	-0.054	0.061
CFO	-0.030	0.320	-0.100	0.050	0.128
Loss	0.486	0.502	0.000	0.000	1.000
Leverage	0.130	0.187	0.000	0.019	0.224
Growth	1.949	2.288	0.884	1.347	2.041
Logasset	4.687	1.881	3.205	4.476	5.461

This table represents the descriptive statistics of the variables employed in this study. DA is estimated residuals from the following cross-sectional modified Jones (1991) model: $TA_{i,t} = \beta_0 (1/A_{i,t-1}) + \beta_1 (\Delta SALES_{i,t} - \Delta REC_{i,t})/A_{i,t-1} + \beta_2 (PPE_{i,t}/ A_{i,t-1}) + \beta_3 ROA_{i,t} + \varepsilon_{i,t}$, where TA is total accruals deflated by lagged assets, A total assets at the beginning of the year, ΔSALES change in net revenues from year t-1 to year t, ΔREC change in accounts receivables from year t-1 to year t, PPE gross property, plant, and equipment, ROA return on assets. Delist is 1 for involuntarily delisted sample firms, and 0 otherwise. CFO is cash flows from operations deflated by total assets. Loss is 1 if the sample firm incurs a loss, and 0 otherwise. Leverage is long-term debt deflated by total assets. Growth is market-to-book ratio. Logassets is natural logarithm of total assets.

Pearson correlations between the dependent and independent variables are reported on Table 3. The key independent variable Delist is strongly and significantly correlated with the dependent variable which suggests it is likely a good predictor of DA. The signs are as expected and all but the correlations for Growth/Delist and Growth/Loss are significant at p<1% or 5% levels. The analysis provides no indication of multicollinearity in the data.

TABLE 3
CORRELATIONS BETWEEN DEPENDENT AND INDEPENDENT VARIABLES

Variables	Delist	CFO	Loss	Leverage	Growth	Logasset
DA	0.202***	-0.540***	0.305***	0.278***	0.286***	-0.439***
Delist		-0.185***	0.323***	0.199***	0.033	-0.185
CFO			-0.217***	-0.450***	-0.609***	0.402***
Loss				0.144**	0.053	-0.395***
Leverage					0.229***	0.017***
Growth						-0.312***

RESULTS

Results reported on Table 4 are in support of our hypothesis H1 that involuntarily delisted firms are inclined to have positive discretionary accruals to boost earnings in the year prior to delisting. The intercept (0.238, P=0.0054) is positive and significant in the year prior to delisting, indicating that the sample firms had positive discretionary accruals for that year, consistent with hypothesis H1. However, the intercept is not significant two years before delisting and in the year of delisting.

TABLE 4
MULTIVARIATE ANALYSIS ON EARNINGS MANAGEMENT OF INVOLUNTARILY DELISTED FIRMS

Model: $DA_{i,t}= \beta_0 + \beta_1 CFO_{i,t} + \beta_2 Loss_{i,t} + \beta_3 Leverage_{i,t} + \beta_4 Growth_{i,t} + \beta_5 Logasset_{i,t} + \varepsilon$

	Two years before delisting		The year prior to delisting		The year of delisting	
Variables	Coefficients	P-values	Coefficients	P-values	Coefficients	P-values
Intercept	-0.0121	0.9050	0.238***	0.0054	0.044	0.7620
CFO	-0.451***	<0.0001	-0.061***	0.0010	-0.056***	0.0003
Loss	0.031	0.5880	-0.015	0.7796	-0.112	0.2942
Leverage	0.037	0.6399	0.076	0.1297	0.226***	0.0020
Growth	-0.010	0.4274	0.003	0.7835	-0.004	0.5206
Logasset	-0.003***	<0.0001	-0.044***	<0.0001	-0.001	0.9517
N	167		167		167	
Adjusted-R^2	31.02%		43.86%		21.64%	

Findings reported on Table 5 support our H2 which denotes that involuntarily delisted firms will have greater discretionary accruals (engage in earnings management to a greater extent) than voluntarily delisted firms. Results for a comparison of the mean (median) are statistically significant at p< 1% (5%). Our initial test used univariate analysis for a comparison of discretionary accruals between these two groups. The mean (median) of DA for involuntarily delisted firms is 0.086 (-0.001) and is significant at the 1% level indicating the firms have positive earnings management. The mean (median) of DA for voluntarily delisted firms is -0.034 (-0.054) and does not indicate a significant level of earnings management. The difference in these two groups' means (medians) is 0.0120 (0.053) and is statistically significant at p< 1% (5%). Discretionary accruals for the involuntarily delisted firms are positive and greater than those of the voluntarily delisted firms.

TABLE 5
UNIVARIATE ANALYSIS: COMPARISON OF DISCRETIONARY ACCRUALS

	Mean	Median	N
Involuntarily delisted firms	0.086***	-0.001	167
Voluntarily delisted firms	-0.034	-0.054	107
Difference	0.120***	0.053**	

Table 6 presents results of the multivariate analysis. In this multivariate analysis, the dependent variable is the discretionary accruals (*DA*) in the year prior to delisting and the interested variable is *Delist*. As expected, the coefficient on variable *Delist* is positive and moderately significant (0.051, p=0.099). Consistent with our prediction, this result suggests that involuntarily delisted firms have the tendency to use greater discretionary accruals to manipulate earnings in order to avoid being delisted relative to voluntarily delisted firms in the year prior to delisting. Results on the control variables are generally consistent with prior research, although *Loss* and *Growth* have unexpected but insignificant signs. For example, *CFO* is negative and significant, confirming the negative correlation between accruals and operating cash flows. *Logasset* is negative and significant, consistent with the political cost hypothesis that larger firms use negative discretionary accruals to reduce earnings when they might incur political costs.

TABLE 6
MULTIVARIATE ANALYSIS

Model: $DA_{i,t}=\alpha_0+\alpha_1 Delist_{i,t}+\alpha_2 CFO_{i,t}+\alpha_3 Loss_{i,t}+\alpha_4 Leverage_{i,t}+\alpha_5 Growth_{i,t}+\alpha_6 Logasset_{i,t}+\varepsilon$

Variables	Predicted Sign	Coefficient	P-value
Intercept	?	0.107**2	0.042
Delist	+	0.051*	0.099
CFO	-	-0.085***	0.000
Loss	-	0.045	0.197
Leverage	+	0.071	0.108
Growth	+	-0.008	0.252
Logasset	-	-0.034***	0.000
N	274		
Adjusted R^2	36.73%		

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

In conclusion, delisting from a major stock exchange provides incentives for managers (even those outside of the US regulatory framework) to manipulate earnings. Auditors, regulators, investors, creditors, and other key groups can be most effective when they recognize the various incentives and methods behind EM. The study finds that firms that involuntarily delisted manage earnings in the year prior to delisting. In addition, involuntarily delisted firms have greater discretionary accruals during this time period than do firms which voluntarily delist. Our results contribute to the growing body of literature on EM and identify an additional incentive for EM not previously studied – involuntary delisting. Armed with this information, interested parties are better equipped to detect, understand, and possibly curtail the implications of inappropriate EM (Jackson & Pitman, 2001).

We identify three potential limitations which should be considered. First, inferences drawn from tests related to incentives for EM depend on an accrual model's ability to accurately estimate discretionary accruals (Kothari et. al., 2005). Therefore, as with all studies which rely on variations of the original Jones Model, our analysis is limited by the accuracy of the accrual models we have adopted. Another

limitation is the final sample size of 274 firms, though our sample size exceeds the generally recommended size due to econometric concerns such as statistical power and level of significance (Tabachnick & Fidell, 1996). Our third limitation is that the multivariate test offers only weak evidence to support our findings.

Future research in this area could expand the investigation of delisted firms outside of US incorporated firms, the US financial market, and US GAAP regulatory influence. EM and delisting are already issues of concern on a worldwide platform and should be investigated - keeping in mind potential differences in EM incentives and delisting requirements imposed by different global regulatory groups, corporate structures, and investor/stockholder expectations. Other avenues of research should examine to a greater depth, ways to deter EM as recently studied by Hughes, Johnson, Omonuk, & Dugan (2012) and the potential for even earlier detection signals than what prior literature suggests.

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