ABSTRACT
We highlight aspects of the Brazilian operating and reporting environment that have led to ample opportunities for researchers to examine the topic of earnings management in financial reporting. In particular, we discuss the potential for research since Brazil has adopted a financial reporting system (IFRS) to replace its tax compliance system. Within that framework, we consider the role of other aspects of Brazil’s environment, including the recent influx of foreign investment, the ability to choose corporate structure, and the implications of inflation on the incentives and opportunities for earnings management. As a guideline to researchers in Brazil, we have also provided a discussion of the applicability of testing those earnings properties most often tested in relation to earnings management, paying particular attention to issues that would be of interest beyond Brazil’s borders.

Keywords: IFRS adoption; earnings management; emerging markets; Brazil
1 INTRODUCTION

In recent years, major changes within Brazil have led to many opportunities for accounting researchers to study earnings management. These opportunities, however, are not without their challenges. In this article, we focus on those issues that would be of significant interest to the major world economies, such as the US and Europe, but are unique to Brazil.

Since financial reporting is enforced by regulators and scrutinized by auditors, Healy and Wahlen (1999) point out that it becomes a low cost and credible means of managers to communicate with outsiders. A concern arises due to the need for managers to use their judgment in selecting reporting methods and making estimates. When managers choose reporting that better reflects their firm’s economic reality, the outcome is more useful financial reporting. On the contrary, the communication breaks down when managers use reporting to either mislead stakeholders about performance or to influence contractual outcomes through earnings management.

Brazil’s adoption of International Financial Reporting Standards (IFRS) in 2010, as a reporting regime, replaced their previously followed Generally Accepted Accounting Principles (BRGAAP) that were intended more for tax compliance than financial reporting. The introduction of a reporting regime created incentives for earnings management. The question remains, however, whether IFRS is a high quality reporting regime that would limit the frequency and magnitude of earnings management. We initially focus on the impact of this shift in reporting regimes on communication.

The extent to which earnings management would influence the quality of communication under IFRS would likely depend on three characteristics of Brazil’s economy. The first influence would be the reclassification to investment grade of Brazil’s markets in 2008, thus likely increasing the level of scrutiny over reporting. The second influence relates to managers being able to choose a corporate structure that would potentially result in a high level of corporate governance (with Novo Mercado), but without the burden of mandatory dividend payout rates (with Traditional Markets), an area not independent from the influence of foreign investment. Finally, the influence of creditors through the relatively high interest rates in Brazil would also likely provide additional oversight that would limit the ability to manage earnings.

We conclude with a discussion of how the various attributes of reporting quality would be related to earnings management. Based on this discussion, we recommend earnings
persistence, magnitude and residuals of accruals, earnings smoothness, and timely loss recognition as the most viable attributes for investigating financial reporting quality and earnings management in Brazil.

2 ADOPTION OF IFRS

Since 2010, the consolidated financial statements of listed companies, including banks and insurance companies, are prepared using IFRS, but as adopted by Brazil’s local standard setter, Comitê de Pronunciamentos Contábeis or CPC (PwC, 2013). Like many countries, Brazil chose to exclude or modify some of the provisions of IFRS, and these exclusions and modifications are, perhaps, interesting areas for research. The most significant variations between IFRS and the CPC accounting pronouncements are Brazil’s prohibition of firms to revalue property, plant, and equipment (except in the initial years of IFRS adoption) and to adopt changes in accounting pronouncements early, as well as the requirement to disclose individual financial statements, where the equity method is applied for investments in securities.

From a broader perspective, Brazil’s adoption of any accounting system with the primary intent being financial reporting is interesting since, prior to 2010 the primary intent of BRGAAP was to provide guidelines for the calculation of taxable income. That is, Brazil went from one extreme, a compliance regime for tax purposes which provided little information to investors, to the other, a reporting regime equal to that of leading economic countries. This area is particularly fertile ground for research as it opens up several questions related to: newly created incentives for earnings management; Brazil’s commitment to higher quality financial reporting that would limit the frequency and magnitude of earnings management; the influence of country-level differences with IFRS adoption; and more.

2.1 NEWLY CREATED INCENTIVES FOR EARNINGS MANAGEMENT

As IFRS becomes more fully ingrained within the Brazilian culture, it is likely that the financial markets would begin to depend on the information provided by financial reporting, and even begin to demand higher quality reporting. Of course, as investors begin to rely more heavily on financial reporting, managers have the choice of whether to take advantage of this new channel of communication with investors, or to use it as a tool for earnings management. If managers use financial reporting as a way to communicate to investors, we expect the informative news of earnings to improve over time. Alternatively, the extant literature provides ample evidence that managers will continue to have various incentives to use accrual accounting to manipulate reporting for opportunistic reasons (HEALY, WAHLEN, 1999;
DEGEORGE, PATEL, ZECKHAUSER, 1999; DECHOW et al., 1996; DECHOW, GE, SCHRAND, 2010).

According to Positive Accounting Theory (PAT), managers have incentives to report such that they: (i) avoid costly debt contracting; (ii) achieve their personal bonus payments; and, (iii) avoid additional public scrutiny which often translates into additional costs for the firm (WATTS; ZIMMERMAN, 1986). Brazil’s adoption of an accounting system (IFRS) that is intended primarily for financial reporting creates these incentives and provides managers with a tool to act on these incentives, tools that they lacked under the tax compliance regime. Tests in more developed countries would focus on specific tools (i.e., accounting choices) used to achieve reporting goals, whereas researchers studying Brazil must first test the extent to which reporting incentives exist under the new reporting regime. For example, given the relatively small size of most publicly traded Brazilian firms (relative to publicly traded firms in the United States, Europe, and more), would managers be less concerned about additional public scrutiny? Or, has the influx of foreign investors amplified the need to manage earnings, such that debt contracting costs are not inflated?

Along those same lines, smaller firms typically have limited channels of communication with outsiders, thus amplifying the importance of a financial reporting system and IFRS in Brazil. Since IFRS can be costly to implement, the IFRS provisions for small to medium sized entities (SMEs), adopted by Brazil in 2010, was created as a low cost option for firms with limited focus on external reporting. In general, IFRS for SMEs is simpler, has fewer complex standards, and less need for consolidated reporting (PwC). The existence of two sets of standards, however, raises several questions. Fundamental questions would include: what effects would there be by having two sets of financial standards; what incentives would managers have to qualify for one or the other; and, how would incentives for earnings management, as well as the frequency and magnitude, differ across the two reporting regimes?

2.2 COMMITMENT TO HIGHER QUALITY FINANCIAL REPORTING

Brazil’s adoption of IFRS is also a signal to the world of its commitment to improving the quality of financial information in Brazil. Any improvements realized would likely be easier to detect in a setting like Brazil, where the switch was from a system primarily intended for tax compliance to a system primarily intended for financial reporting. On the contrary, improvements in the accounting standards in the US that would result in higher quality financial statements would likely be obfuscated by the existing high quality reporting regime.
But with IRFS, Brazilian firms could now report opportunistically without cash flow effects, which previously would have directly resulted in greater tax costs.

2.3 INFLUENCE OF COUNTRY DIFFERENCES

The question of whether a country’s national institutions and culture might influence the implementation of IFRS and, ultimately, its ability to curb earnings management, has had limited attention in the extant literature. One such study on the influence of the local country on the adoption of IFRS is Liao, Sellhorn and Skaife (2011), who provide evidence that financial reporting of France and Germany was comparable upon adopting IFRS, but subsequently diverged which would have shifted the incentives for earnings management. In this case, each country reverted back, somewhat, to their pre-adoption local GAAP.

A key difference in a study set in Europe to a study set in Brazil is that pre-adoption GAAP in these European countries was primarily intended as a reporting system where pre-adoption BRGAAP was primarily intended as a compliance system where there were limited incentives for (upward) earnings management. As such, there would not likely be the pressure by financial statement users to revert back to a former reporting system in Brazil, as was the case in France and Germany. Going forward, the financial information in Brazil will likely continue to improve under IFRS, where the advent of a reporting system will only fuel greater demands for high quality information.

3 INCREASED FOREIGN INVESTMENT

The increase of foreign investment in Brazil in recent years is another fertile area for research. In particular, the increase in foreign investment is likely to result in a related expansion of the investment opportunity set of Brazilian firms. Generally, growing firms with ample opportunities have fewer established assets in place and are thus compelled to exhibit higher reporting quality, such as recognizing losses more timely than a less conservative firm (KHAN; WATTS, 2009). Growth opportunities, however, also provide managers with greater discretion on the timing in which to recognize revenues and expenses, thus enhancing the potential for earnings management. Further, the increase in foreign investment would lead to greater separation of management and ownership. This separation would likely result in an agency problem that is also linked to the quality of financial reporting.

We expect that the extent to which foreign investors feel there is information asymmetry; they would act as monitors of financial reporting to reduce the potential for earnings management, similar to the role of institutional investors in the US. With the growth opportunities available to Brazil, the demand for, and benefits promised by IFRS (more
principle based, less rules complexity, greater comparability, and more) are well timed. Although, it is not clear which came first, the move toward improved financial reporting quality to attract foreign investors or the increased demand for quality financial reporting from foreign investors. This is yet another interesting question to explore. Specifically, researchers using Brazilian data can better identify whether higher quality reporting, and hence a commitment to reduced earnings management, is selected by managers to draw investors or if the foreign investment leads to high quality standards as an outcome. Given the level of complexity of investment and reporting in the US and other more mature markets, a similar study would be more difficult to execute.

While foreign investment provides new and interesting areas of research, it also poses problems related to the reliability of data. In particular, market data in Brazil likely lacks the efficiencies of market data in the US, since the infrequency of trading results in stock prices not being efficient in reflecting underlying public information (and hence firm value). This could be especially problematic when using the Basu (1997) returns model to identify timely loss recognition or when testing the price-earnings relation. For thinly traded stocks, other accounting quality attributes that are less affected by such a limitation might be better at assessing the influence of foreign investment. Ultimately, researchers would be able to explore whether oversight from foreign investors is a factor that reduces the frequency and/or magnitude of earnings management.

4 CHOICE OF CORPORATE STRUCTURE

The availability of different types of corporate structure in Brazil provides a setting in which to explore how firms resolve the agency problem when management is separated from ownership. On one hand, firms that choose the ‘Traditional Market’ structure is opting for less oversight, but in return, they must submit to mandatory distributions to shareholders. The mandatory distributions would curb the managers’ incentives to manage earnings upward as inflated earnings would translate into more cash dividends required to be distributed. On the other hand, firms can choose the strongest level of oversight with ‘Novo Mercado’. Under this corporate structure, firms issue only ordinary shares of stock that are not subject to mandatory distributions of dividends. This raises the question, however, of whether the oversight required with Novo Mercado offsets the protection against managers extracting economic rents that the mandatory dividends would otherwise provide.

With the introduction of IFRS in Brazil providing the incentives for earnings management, a unique opportunity exists to test the extent that oversight (Novo Mercado) or
dividend distributions (Traditional Market) are effective in mitigating opportunistic reporting. Since the majority of Brazilian initial public offerings in recent years have been Novo Mercado, a pertinent question is whether the level of corporate governance required by Novo Mercado is an effective resolution to the problem of managers acting in their own self interests. The mandatory dividend provision of the Traditional Market structure implies that the oversight is insufficient to align the interests of managers with the firm or to discipline them when they act in their own self interest. As a possible signal of a firm’s commitment to not manage earnings, many Traditional Market firms pay dividends in excess of the required amount. The adoption of IFRS allows researchers to test whether a high quality set of standards would allow firms to reduce the payment of excess dividends, but still be perceived as high quality.

The choices allowed public companies in the US are not on corporate structure, but on the level of oversight. Studies in the US on oversight typically test the influence of auditor size or expertise, or effects of the constraints imposed by debt covenants on earnings management. But evidence from studies using these choices is, by definition, less direct than the evidence from exploring whether the trade-off of corporate oversight and wealth distribution that exists in Brazil. Researchers will likely need to address the issue of self-selection; however, in order to ultimately address the endogeneity issues that often plague these types of studies.

5 INFLUENCE OF HIGH INTEREST AND INFLATION RATES

Although Brazil has outgrown its hyper-inflationary years leading up to and through the 1990’s, it still has relatively high interest rates compared to the US and Europe. As such, trade credit becomes an attractive alternative to costly financing. For instance, Brazilian-based Petrobras extends trade credit to its suppliers, thereby providing them more affordable working capital (JAMES, 2011). This leads to the question of how influential are short-term creditors who rely primarily on business relationships, relative to long-term creditors who traditionally rely on more formal debt covenants, to enforce their contracts and minimize earnings management.

Econometrically, high interest rates that characterize the operating environment of Brazilian firms pose some technical challenges for researchers. For example, earnings is commonly used as a summary performance measure in accounting research studies. In Brazil, this metric is traditionally downward skewed due to cost of doing business in Brazil. Therefore, when designing a study that requires the use of this type of data variable, use of
earnings before interest and taxes as the primary performance measure would avoid this confounding factor.

6 ATTRIBUTES OF REPORTING QUALITY

Dechow, Ge and Schrand (2010) identify three categories of the most commonly used proxies for financial reporting quality – qualities that would limit earnings management. The first category includes the properties of earnings: persistence, magnitude of accruals, residuals from accrual models, smoothness, timely loss recognition, and earnings benchmarks. The second category includes measures of investor responsiveness, which are market based. External indicators of earnings misstatements make up the third category, which focuses on outlier performance. We discuss in more detail each of these proxies, highlighting the opportunities that Brazil offers accounting researchers to study earnings management.

6.1 EARNINGS PERSISTENCE

According to standard setters, the usefulness of financial reporting is, in part, defined by its predictive value (IASB 2010; FASB 2010). The extant literature consistently views earnings that are more persistent as earnings with a higher degree of predictability. For example, Burgstahler and Dichev (1997) provide evidence of managers’ incentives to manage earnings to achieve small, yet persistent, increases in earnings. A commonly used metric of earnings persistence is featured in equation (1).

\[ Earnings_{t+1} = \alpha + \beta Earnings_t + \varepsilon_t \] (1)

where \( \beta \) measures persistence.

Whether the switch to IFRS increased managers’ ability to report more persistent earnings is an open question. When examining the issues surrounding full IFRS versus IFRS for SMEs, accounting researchers could analyze differences in earnings persistence to assess the quality of reporting under each set of standards. On one hand, it follows that foreign investors in Brazil would benefit from greater earnings persistence, since more predictable earnings would be viewed by foreign investors as being less risky. On the other hand, greater earnings persistence could be an indication of earnings management, at least in the short run. In either case, another important question here is whether foreign investors are a determinant or a consequence of earnings persistence. Unlike other proxies, an advantage to using earnings persistence to assess reporting quality in Brazil is that this metric requires only the availability of reported earnings.
6.2 MAGNITUDE OF ACCRUALS

A prevalent belief in the accounting literature is that the level of accruals, particularly discretionary or abnormal accruals, is inversely related to earnings quality (SLOAN, 1996; XIE, 2001). Common methods of measuring the accruals are shown in equations (2a) through (2d).

\[ \text{Accruals}_t = \text{Earnings}_t - \text{Cash Flows}_t \]  
(2a)

\[ \text{Accruals}_t = \Delta(\text{Noncash working capital})_t \]  
(2b)

\[ \text{Accruals}_t = \Delta(\text{Net operating assets})_t \]  
(2c)

Specific accrual components  
(2d)

Using abnormal accruals as a proxy for earnings management, Klein (2002) documents a negative relation between corporate governance and the magnitude of abnormal accruals. In fact, she asserts that the role of an effective audit committee, a component of the Board of Directors, is to reduce the magnitude of positive or negative abnormal accruals. She supports this assertion with evidence that firms that experiencing a decrease in the level of corporate governance experience a related increase in the magnitude of abnormal accruals.

In a similar fashion, researchers could compare the magnitude of abnormal accruals of firms that formed under Novo Mercado (control through monitoring) to firms that formed under Traditional Market (control through mandatory dividends) and draw inferences related to the implications for financial reporting of allowing such a choice of corporate structure. This metric could also be used to address the question of whether managers of Brazilian firms use the new channel of communication, IFRS, to report informatively or to manage earnings.

6.3 ACCRUAL RESIDUALS

Residuals from accrual models reflect the extent to which accruals do not map into cash flows. Whether due to intentional misstatements or unintentional errors, poor mapping identifies a mismatch of financial reporting with financial performance and indicates poor quality reporting. Intentional misstatements would be directly related to earnings management, where the unintentional errors would be related to the failure of the reporting regime (IFRS, in the case of Brazil) to limit the potential errors. Common methods of measuring the residuals of accruals are shown in equations (3a) through (3e).

\[ \text{Tot Curr Accruals}_t = \alpha + \beta_1\text{Revenue}_t + \beta_2\text{PPE}_t + \varepsilon_t \]  
(3a)

\[ \text{Tot Curr Accruals}_t = \alpha + \beta_1(\Delta\text{Revenue}_t - \Delta\text{Receivables}_t) + \beta_2\text{PPE}_t + \varepsilon_t \]  
(3b)
Discretionary Accruals$_t$ – Matched firm’s discretionary accruals$_t$ (3c)

$\Delta Working Capital_t = \alpha + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \epsilon_t$ (3d)

$Tot Curr Accruals_t = \alpha + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \beta_4 Revenue_t + \beta_5 PPE_t + \epsilon_t$ (3e-1)

$\sigma(\epsilon_t) = \alpha + \lambda_1 Size_t + \lambda_2 \sigma(CFO)_t + \lambda_3 \sigma(Revenue)_t + \lambda_4 \log(OperCycle)_t + \lambda_5 NegEarn_t + \nu_t$ (3e-2)

As with the magnitude of accruals, the accrual residuals can also be used to assess reporting quality related to Brazil’s unique economic characteristics. For instance, is the level of foreign investment associated with a better mapping of accruals with cash flows? Similarly, are the Novo Mercado firms more likely to exhibit a better mapping than Traditional Market firms? Additionally, accrual-based metrics can be used to examine the extent to which accrual accounting can be used to manage earnings to minimize taxes or to avoid higher interest costs due to violations of accounting based debt covenants.

6.4 EARNINGS SMOOTHNESS

The extant literature suggests that smoothing generally results in higher quality reporting within the US, but elsewhere, smoothing has a negative impact on earnings quality (DECHOW; GE; SCHRAND, 2010). Smoothing is commonly measured as the standard deviation of reported earnings relative to that of cash flows as shown in equation (4).

$$\sigma(Earnings)/ \sigma(Cash Flows)$$ (4)

Although smoothing is a direct result of earnings management, the perceived effect of smoothing on earnings quality would, according to Dechow, Ge, Schrand (2010) depend on the intent of smoothing. For instance, smoothing transitory earnings tends to provide a better picture of the firm’s economic condition in the long term. Smoothing permanent earnings, however, serves to distort the firm’s economic condition and thus decreases the decision usefulness of the information. Most of the research, however, on the differences in preferences for smoothing in the US versus elsewhere was performed in years prior to the widespread adoption of IFRS.

There appears to be a need for more research to determine if smoothness of earnings continues to be viewed differently in countries outside of the US, as more and more countries replace their local GAAP with presumably higher quality IFRS. Researchers could explore if the different types of corporate structures allowed in Brazil, which coincide with different levels of corporate governance, exhibit predictable variations in earnings smoothness. That is, if a smooth earnings stream indicates lower quality reporting outside of the US, then one
would expect less smoothing to occur as the level of corporate governance increased in Brazilian firms.

6.5 TIMELY LOSS RECOGNITION

In the US, where prices tend to lead reported earnings, financial reporting quality is considered to be improved to the extent that financial statements reflect, in a timely manner, the information (particularly negative information) that is already impounded into stock prices. The extant literature finds that, internationally (BALL; SADKA; ROBIN, 2008) and within the US (NIKOLEAV, 2009) creditors, more than equity holders, demand conservative accounting, since this type of reporting combats managers’ natural tendency to manage earnings upward. Ball, Sadka and Robin (2008) suggests that since creditors contract on reported financial information, they, more than equity holders, demand financial reporting that “scores highly on traditional association-study metrics (page 169)”. This is because association studies measure the efficiency in which financial statements reflect publicly available information. In this way, creditors are primed to act quickly, as soon as the financial statement-based covenants are tripped. A common measure of timely loss recognition is featured in equation (5).

\[
Earnings_{t+1} = \alpha_0 + \alpha_1 D_t + \beta_0 Returns_t + \beta_1 D_t \times Returns_t + \epsilon_t
\]  

(5)

where \( D_t = 1 \) if \( Returns_t < 0 \).

Now that Brazil has put a reporting regime in place, higher quality firms will want to differentiate themselves through their reporting. If managers use their accounting choices to signal higher quality reporting, this is likely where we will observe conservatism in Brazil. At the extreme, however, excessive conservatism would be construed as a ‘big bath’ and would be another form of earnings management in which the manager is opportunistically shifting earnings to later periods. Areas already discussed – foreign investment, corporate structure, and interest – are all rich with opportunities to examine the role of conservatism in financial reporting.

This area of research is subject to some technical limitations. For instance, a primary method of testing for timely loss recognition, conservative reporting, is to use the reverse regression featured in Basu (1997). This model requires that price data reflect publicly available information in a timely fashion – an assumption not likely to hold widely in Brazil with its thinly traded markets. Furthermore, this measure can only be employed for firm years where negative returns existed, thus further reducing the limited number of observations that
is characteristic of Brazilian data sets. We make several suggestions to overcome these limitations.

To overcome some of the data limitations inherent in testing Basu’s (1997) timely loss recognition model, we suggest that researchers use alternative approaches. For instance, Khan and Watts (2009) offer a method which, although relies on price data, incorporates both positive and negative return year observations, thus salvaging observations and preserving sample size. Additional methods of testing for conservative reporting, that do not rely on price data, include the mean, variability and negative skewness of return-on-assets and non-operating accruals (GIVOLY, HAYN, 2000; WATTS, 2003).

6.6 EARNINGS BENCHMARKS

The use of benchmarks, also known as target beating, has become synonymous with earnings management. This is because it is reasonable to believe that rational managers would manipulate their numbers if it meant their reaching a specific target of earnings per share or showing positive earnings. Such manipulations result in unusual clustering of reported earnings around key benchmarks (zero, last period’s earnings, or analyst forecasts). The potential for research addressed under the previous attributes also exists with this metric of earnings quality.

Again, we caution researchers about the related technical limitations here. In Brazil, where there is generally less analyst following, perhaps the relevant benchmarks would not be forecasted earnings per share, but rather would be avoiding negative earnings or beating prior period earnings. Furthermore, analyst following is generally concentrated in a subset of the largest firms, leading to potentially biased samples.

6.7 INVESTOR RESPONSIVENESS

Investors are assumed to respond to information that aids them in their capital allocation decisions. Therefore, when reported earnings are of better quality, those earnings will have a stronger association with the firm value. Because these measures of reporting quality rely on the assumption of market efficiency, conclusions based on this approach would be difficult to form. We recommend that accounting researchers in Brazil utilize other metrics until such a time that the use of IFRS and the influx of foreign investors create a more efficient financial market. Of course, until that time, the prevailing question will be the extent to which market prices reflect publicly available information.
6.8 EXTERNAL INDICATORS OF EARNINGS MISSTATEMENTS

When firms are forced to restate their financial reports or suffer some disciplinary action from an authoritative body, it is a clear indication of poor quality reporting. The primary disadvantage to using external indicators, such as restatements or disciplinary actions, is that there are relatively few instances resulting in small sample size. Further, these are the more extreme cases and thus are less generalizable. Considering the aforementioned limitations related to data availability, this proxy for earnings quality is unlikely to be useful for accounting researchers in Brazil.

7 CONCLUSION

In this article, we highlight the uniqueness that Brazil offers for accounting researchers in a time of significant changes in the world economy. To that end, we have identified major areas that we believe are the most promising for further research on the topic of earnings management. As a guideline to researchers in Brazil, we have also provided a discussion of the applicability of testing those earnings properties most often tested in relation to earnings management, paying particular attention to issues that would be of interest beyond Brazil’s borders.

REFERENCES


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1 Since the IASB and the Financial Accounting Standards Board (FASB) have revised their conceptual frameworks as part of a joint project to achieve higher quality reporting standards, worldwide, much of the guidance related to the purpose of financial reporting and the characteristics of useful financial information is similar between the two standard setters.