# FINANCIAL REPORTING QUALITY IN LARGE ENERGY & MINING COMPANIES: A CANADIAN CASE

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**Abstract**

This paper primarily examines the effect of the mandatory IFRS adoption in Canada by the Canadian energy companies. It is a comparative study between the Canadian GAAP and IFRS from 2008 to 2012. Since this research is an empirical study, the quantitative research method is applied. The research question for this research study is: Does IFRS adoption in the Canadian energy and mining companies improve accounting quality?. This research finds that earnings quality has increased due to the lower volatility between earnings and market price; enhance predictability in the cash flows and financial forecasting (cash related); and stronger influence of earnings to shareholder value. However, it also finds that earnings quality has reduced due to lower persistency and predictability; and less accruals and timeliness loss of recognition (increase in income smoothing).

**Keywords:** IFRS, Accounting Quality, Financial Reporting, GAAP, Accruals, Organization Performance

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## 1 Introduction

Over the past decade, the International Financial Reporting Standards (IFRS) has emerged as the dominant reference for financial reporting in over one hundred and twenty countries around the world. While there is extensive research worldwide on the impact of adopting IFRS, this research believes that examining at the Canadian experience (recently adopted IFRS in 2011) may provide relevant information based on its culture and capital market system, as previous studies did when the European countries adopted IFRS in 2005. It is also believed that this study results will provide relevant information to the United States accounting scholars and the standard setter, the FASB, as both countries GAAPs are comparable and the respective capital markets are similar in nature. That is, this research findings will provide some useful hints as to what the U.S. firms and markets will expect from the adoption of the IFRS. For two decades, Canada's accounting standard setter has a convergence policy towards the U.S. GAAP, primarily adopting the U.S. standards with some modification or reconciliation, primarily from the culture of rule-based standard, a stringent application of accounting regulations.

The purpose of this empirical research is to investigate whether the adoption of the IFRS, primarily characterized as principal-based standard (difficult to circumvent provision in the form of transaction), by the Canadian energy and mining companies enhances accounting quality in terms of the financial reporting. To examine this important quest, as demanded each time the IFRS is implemented in respective countries, this research has pursued a comparative approach. That is, it compares the pre-IFRS period (2008-2010) under the Canadian GAAP with the IFRS period (2011-2012), to understand the nature and extent of impact on the accounting quality, along the defined accounting quality attributes of the reported earnings, accruals, persistency, value relevance, predictability, income smoothing, timeliness loss of recognition, and reporting aggressiveness. Previous studies concerning the European countries have shown an overall increase in earnings management in the post-adoption period, documented by an increase in income smoothing and no significant change in managing earnings towards a target. The findings deriving from the measurement of timely loss recognition indicate that the IFRS adoption is associated with a decrease in the timeliness of the recognition of large losses and with a contemporaneous increase in the timeliness in recognizing economic losses relative to gains in the reported income. As for the value relevance tests, results highlighted that the IFRS adoption increases the combined value relevance of the book value and earnings in particular, outcomes of relative value relevance analysis highlighted that earnings markedly improve its ability to explain stock prices in the post-adoption period compared to the pre-adoption one (Paglietti, P., 2009).

It is evident that the financial reporting presentation under the IFRS is much more detailed in nature relative to the Canadian GAAP (despite similar principle-based framework as IFRS) and the United

States GAAP (rule-based framework). For example, statement of operations items require detail disclosure information such as of amortization and employee benefits. It is theoretically believed that the adoption of the IFRS is associated with the earnings becoming timelier, more volatile and more informative, making their introduction beneficial for investors and shareholders. The two most frequently claimed benefits associated with the IFRS adoption are an increase in information quality, and an increase in accounting comparability. The highest quality standard indicates a standard that either reduces managerial discretion over accounting choices that are inherently disallowed smoothing or overstatement of earnings. According to Ball (2006) and Choi and Meek (2005), IFRS has the potential to facilitate cross-border comparisons, increase reporting transparency, decrease information costs, reduce information asymmetry and thereby increase the liquidity, competitiveness and efficiency of the markets.

The properties of the accounting numbers such as earnings smoothness and magnitude of accruals are affected not only by the underlying economic determinants and the exercise of the managerial judgments but also by the nature of the accounting standards. For example, IFRS permits capitalizing development expenditures that were expensed under many domestic accounting standards. This has the effect on increasing earnings and reducing earnings volatility. Similarly, IFRS requires goodwill impairment rather than systematic amortization. Again, this would increase accruals and earnings except during periods when goodwill is impaired. Another example of a potential significant change in accruals is recognition of employee benefit expenses that were not recognized prior to the IFRS adoption. This would reduce accruals and earnings but potentially increase smoothing. The broader point is that the adoption of certain standards could alter the properties of earnings without necessarily changing the accounting quality. According to Schipper and Vincent (2003), earnings are important to a firm for the reason that they are used as a summary measure of the performance of a firm by a large variety of users. Persistency of the earnings is said to be persistent when they recur over time, or when they are sustainable or permanent. It also refers to the extent to which an innovation (unexpectedness) in the earnings series causes investors to revise their future earnings expectations (Boonlert, 2004). Researchers measure the persistency of earnings by looking at the explanatory power of the past earnings to present earnings. When the past earnings are not associated with the present earnings, the earnings are not persistent or not recurring. Predictability is defined as the ability of current earnings to predict future earnings and cash flows from operations. Current and also past earnings are the input to forecasting the future earnings/cash flows. Smoothness is measured by the amount of variability of the cash flow and the variability of earnings (Leuz et al., 2003). Smoothness can be seen as a desirable earning attribute as managers use information about their future income to smooth out momentary fluctuations. This will give more representative reported earnings, as these earnings contain future information. Value relevance is determined by measuring the correlation between the income variables (e.g. EPS) and the market price per share. According to Lang (1991) it is proven that the stock prices can be explained as a multiple of earnings. Market prices follow earnings, i.e. changes in earnings will affect the market prices. The higher the explanatory power of the earnings, the more value relevant the earnings are. Since more value relevant earnings would describe the firm's asset price more accurately, earnings are judged to be of high quality when they are high value relevant. Warfield and Wild (1992) suggests that the market returns should lead annual earnings and have a predictive power over the investors. If earnings have a greater predictive power under IFRS they should be anticipated much more before the release of the annual report under IFRS than under Canadian GAAP.

### *1.1 Research question*

Does IFRS adoption in the Canadian energy and mining companies improve financial reporting?

### *1.2 Hypotheses*

$H_0$: Financial reporting has not improved after IFRS adoption in Canadian energy and mining companies.
$H_1$: Financial reporting has improved after IFRS adoption in Canadian energy and mining companies.

## 2 Literature review

### *2.1 Quality of earnings in IFRS reporting*

According to Penman (2002), who stated that, the quality of the earnings is based on the earnings persistency, predictive ability of the earnings. They view that earnings are to be of high quality when the firm's past earnings are strongly associated with its future earnings. Other researchers view earnings to be of higher quality when earnings are value relevant, for example, the earnings are strongly associated with the security's price (Francis and Schipper, 1999). Voulgaris, Stathopoulos, and Walker (2011) believed that IFRS adds noise to accounting numbers that makes reported earnings less useful for evaluating managerial performance. This is mainly due to the adoption of the fair value accounting, which potentially makes accounting numbers more value-relevant, but also more volatile and sensitive to market movements. In addition, they believed that whilst the IFRS may have made accounting earnings more useful for stock market valuation purposes, this may have

been achieved at the expense of other purposes that accounting serves, i.e., stewardship/performance contracting. In other words as accounting numbers are designed to conform more and more closely with market values, then the less they are able to provide information over what is complementary to market values for evaluating performance. Similarly, Kim and Suh (1993) believed that if accounting numbers become more sensitive to market movements than the accounting related signals, provides little additional information about managing performance, as they no longer screen out market related noise. Moreover, the move to fair value accounting makes accounting earnings figures more volatile (Barth et al. 2011). If the increase in earnings volatility is driven by events almost entirely outside the control of management then this also reduces the attractiveness of the earnings, as a basis for performance-based contracts. Ball (2006) and Choi and Meek (2005) believed that the IFRS has the potential to facilitate cross border comparability, increase reporting transparency, decrease information costs, reduce information asymmetry and thereby increase the liquidity, competition and efficiency of markets. In addition, Ball (2006) notes that the fair value orientation of the IFRS could add volatility to the financial statements, in the form of both good and bad information, the latter consisting of noise which arises from inherent estimation error and possible managerial manipulation. Ahmed, Neel, and Wang (2012) states that, the effects of the mandatory IFRS adoption on the accounting quality critically depend upon whether the IFRS is of higher or lower quality than domestic GAAP and how they affect the efficacy of enforcement mechanisms. By a higher quality standard they mean a standard that either reduces managerial discretion over accounting choices or inherently disallows smoothing or overstatement of earnings. If IFRS is of higher quality than domestic GAAP, and they are appropriately enforced, then we expect mandatory adoption of IFRS to improve accounting quality. On the other hand, if IFRS are of lower quality than domestic GAAP or if IFRS weaken enforcement (for example because of increased discretion or flexibility) then it would expect to reduce accounting quality. Thus, the impact of IFRS on the accounting quality is an empirical question. This is supported by Leuz, Nanda, and Wysocki (2003), Barth, Landsman, and Lang (2008), Christenson, Lee, and Walker (2008), and Chen, Tang, Jiang, and Lin (2010), who believed that accounting choices that result in greater income smoothing, greater management of earnings to meet a target, and overstatement of earnings (or delayed recognition of losses) as compromising faithful representation of the underlying economics therefore, reduce accounting quality. Similarly, Barth et al. (2008) presents three reasons why the adoption of the IFRS could lead to improvements in the accounting quality. First, the IFRS eliminates certain accounting alternatives thereby reducing managerial discretion. This could reduce the extent of opportunistic earnings management and thus improve accounting quality (Ewert and Wagenhofer, 2005). Second, IFRS is viewed as principles-based standards and thus are potentially more difficult to circumvent. For example, under a principles-based standard it should be more difficult to avoid recognition of a liability through transaction structuring. Third, IFRS permits measurements such as, use of fair value accounting which may better reflect the underlying economics than domestic standards. At the same time, Barth et al. (2008) also note two reasons why the adoption of IFRS may reduce accounting quality. First, IFRS could eliminate accounting alternatives that are most appropriate for communicating the underlying economics of a business thus forcing managers of these firms to use less appropriate alternatives thus resulting in a reduction in accounting quality. Second, because IFRS is principles-based, they inherently lacked detailed implementation guidance and thus afford managers greater flexibility (Langmead and Soroosh, 2009). For some important areas such as revenue recognition for multiple deliverables, the absence of implementation guidance would significantly increase discretion and allowable treatments, depending upon how they are interpreted and implemented. Given managers' incentives to exploit accounting discretion to their advantage documented in prior studies such as Leuz et al. (2003), the increase in discretion due to lack of implementation guidance is likely to lead to more earnings management and thus lower accounting quality, ceteris paribus.

### *2.2 Accounting quality under IFRS*

Ahmed, Neel, and Wang (2012) stated that previous studies focused on a number of institutional factors that have impacted accounting quality. The evidence in previous studies suggests that the accounting quality is generally higher in strong enforcement countries relative to weak enforcement countries. This in turn suggests that there may be systematic differences in the effects of the IFRS adoption in strong enforcement versus weak enforcement countries. However, it is very difficult to make definitive predictions because the change in accounting quality from the pre-IFRS periods to the post-IFRS periods depends upon: (i) whether the IFRS is of higher or lower quality than the domestic GAAP, for example, whether they increase or decrease overall managerial discretion; and (ii) on the efficacy of enforcement mechanisms. For strong enforcement countries, if IFRS is of higher quality than domestic GAAP and they are appropriately enforced, expect an improvement in accounting quality. For example, if IFRS eliminates accounting alternatives that were opportunistically used by the managers, elimination of these alternatives would improve the accounting

quality. They also believed that strong enforcement partition has a significantly higher average rule of law score. That is, firms in the strong enforcement partition have lower (higher) average total assets, book-to-market, growth rates, and leverage (market values) relative to the weak enforcement partition. In addition, they believed that if the IFRS are of lower quality than domestic GAAP in the sense that they increase managerial discretion, accounting quality would decline even in strong enforcement countries given that managers have incentives to exercise their discretion in their own interests. Furthermore, the accounting quality may decline after the mandatory IFRS adoption because principles-based standards are looser, on average, than domestic standards and thus, more difficult to enforce. Nelson (2003) concludes that aggressiveness of reporting decisions increases with the imprecision of the relevant reporting standard, based on a survey-based research. In addition, they believed that even in strong enforcement countries, relatively loose standards can result in more opportunistic choices. This is supported by Paananen and Lin (2008), who find that evidence of a decline in accounting quality in Germany, strong enforcement country, after the mandatory IFRS adoption. Ball (2006) believes that in the absence of suitable enforcement mechanisms, real convergence and harmonization is infeasible, resulting in diminished comparability. Collectively, these studies suggest that loose standards can lead to a decline in accounting quality even in strong enforcement countries. On the other hand, in the weak enforcement countries, previous research studies such as of Leuz et al. (2003), Burgstahler et al. (2006), Holthausen (2009), and Hope (2003) argue that rules or standards are generally not effective, that is, without adequate enforcement, even the best accounting standards will be inconsequential. Extending this logic, even if the IFRS is of a higher quality than a domestic GAAP, they are unlikely to result in improvements in accounting quality in weak enforcement countries because they are unlikely to be properly enforced. Therefore, do not expect a change in accounting quality after the mandatory IFRS adoption for firms in weak enforcement countries. Armstrong et al. (2009) and Soderstrom and Sun (2007) believed that cultural, political and business differences may also continue to impose significant obstacles in the progress towards this single global financial communication system, since a single set of accounting standards cannot reflect the differences in the national business practices arising from differences in the institutions and cultures.

### *2.3 Variables influenced IFRS framework*

Ahmed, Neel, and Wang (2012) also finds in their study that there is an increase in income smoothing for the IFRS firms relative to benchmark firms after the mandatory IFRS adoption. Specifically, they find a significant decrease in the volatility of net income, the volatility of net income relative to the volatility of cash flows, and the correlation between cash flows and accruals for the IFRS firms relative to benchmark firms. Second, they find evidence of a significant increase in aggressive reporting of accruals for the IFRS firms relative to benchmark firms. Third, they find evidence of a significant reduction in timeliness of loss recognition for the IFRS firms relative to benchmark firms consistent with the increase in reporting aggressiveness suggested by the accrual tests. Finally, they believed that their evidence is consistent with meeting or beating earnings targets after controlling for variable, management, in benchmark firms. In addition, they stated that while the evidence is not fully consistent across all proxies, taken together the results suggest that the accounting quality decreased after the mandatory IFRS adoption. Ball et al. (2000) finds that timeliness of loss recognition decreases significantly after the mandatory IFRS adoption relative to benchmark firms. Similarly, Paananen (2008) and Paananen and Lin (2008) find in their results that there is a decrease in financial reporting quality, an increase in earnings management, and a reduction in timeliness of loss recognition in Germany, following mandatory IFRS. Jeanjean and Stolowy (2008) finds no decline in the pervasiveness of the earnings management in Austria and UK but an increase in France. Christensen et al. (2008) finds that the incentives dominate standards in determining accounting quality around mandatory IFRS adoption. Daske et al. (2008) shows that the capital market benefits around the mandatory adoption of the IFRS are unlikely to exist primarily because of IFRS adoption. Daske (2006) finds no evidence that the IFRS adoption decreases a firm's cost of capital. Atwood et al. (2010) finds that the earnings reported under the IFRS are no more or less persistent and are no more or less associated with the future cash flows than earnings reported under the local GAAP. In addition, they suggest that the documented increase in analyst forecast accuracy following the IFRS is not the result of the differences in the underlying persistence of those earnings. Barth et al. (2008) shows that the voluntary adoption of the IFRS is associated with less earnings management (i.e. less earnings smoothing), timelier loss recognition and higher value relevance of accounting earnings. Hung and Subramanyam (2007) reaches similar conclusions about accounting quality for German voluntary adopters between 1998 and 2002. Horton, Serafeim, and Serafeim (2012) finds that forecast accuracy improves significantly after the mandatory IFRS adoption relative to firms that do not adopt IFRS. In addition, the larger the difference between IFRS and local GAAP earnings the larger is the improvement in forecast accuracy, increasing the confidence that it is the IFRS adoption that causes the improvement in the information environment. Forecast accuracy improves more for analyst-firm pairs that are affected by either information or

comparability benefits. Overall, they find that the increase in forecast accuracy is driven by manipulation.

## 3 Research methodology

### *3.1 Research method and data collection*

This research is an empirical comparative study between Canadian GAAP (2008-2010) and IFRS (2011-2012) periods, to understand the effect of the IFRS adoption on the Canadian energy and mining companies, listed on the Toronto Stock Exchange (TSX/S&P). Fielding and Fielding (1986, pp. 34) stated that: "what is important is to choose at least one method which is specifically suited to explore structural aspects of the problem and at least one which can capture the essential elements of its meaning". This research study requires collecting, counting, and classifying data, and performing analyses on statistical findings. It requires a process to include a method of deductive reasoning by the use of the measurement tools to collect the relevant data. In addition, it requires only establishing associations among variables using effect statistics such as correlations. As such, the quantitative research method will be selected for this research study. Bryman (1989) explained that the quantitative research method tests hypotheses and identifies patterns in variables whereas the qualitative method validates corporate information and informs some of the methodological decisions. Within a quantitative research method framework, longitudinal study approach will be adopted to collect five years of data from 2008 to 2012. According to Zanaida and Fernando (2000), longitudinal design is seldom used in social science research; however, it is typically within financial investigations that have adopted positivist research philosophy. Buck et al. (2003) and McKnight and Tomkins (2004) believed that financial research is very typical for a positivist investigation. This is supported by Main & Johnson (1993), who believed that companies' annual reports are a common resource tool when examining archival data. Accordingly, this study will collect financial data of companies from highly credible SEDAR (Canadian public companies reporting database). The sample will consist of fifteen large energies firms based on revenues in excess of $2 billion. The fifteen sample company will have majority market share in the Canadian biggest industry sector, energy and mining. The random sample method will be selected for this research study to avoid selection bias, as it is the purest form of probability sampling. Yates (2008, p. 27) believed that an unbiased random selection of individuals is important so that in the long run sample represents the population. Groves et al. (2004, pp. 4) stated: "survey is a systematic method for gathering information from (a sample of) entities for the purpose of constructing quantitative descriptors". As such, this research study will use the survey method to collect data from 2008 to 2012. In addition, this research will use regression models for the modeling and analysis of the numerical data, and will assume a confidence interval or alpha of five percent (typical in academic research).

### *3.2 Statistical models*

This research study will try to understand the accounting quality in two approaches.

#### *3.2.1 Statement of Financial Position (Balance Sheet) approach*

$$\Delta NI/\Delta TA^{4} = \Delta NI/\Delta OCF + \Delta OCF/\Delta Accruals + \Delta OCF/\Delta TA + \Delta NI/\Delta Accruals + \Delta EPS/\Delta MP + \Delta NI/\Delta BVPS \quad (1)$$

#### *3.2.1.1 Regression Model 1 (Statement of Financial Position approach):*

$$Y_1^{5} = c + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + \epsilon \quad (2)$$

#### *3.2.2 Statement of Operations (Income Statement or Profit/Loss) approach*

$$\Delta NI^{6} = \Delta EPS + \Delta BVPS + \Delta MP + \Delta OCF + \Delta Accruals \quad (3)$$

#### *3.2.2.1 Regression Model 2 (Statement of Operations approach)*

$$Y_2^{7} = c + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + \epsilon \quad (4)$$

[4] ΔNI/ΔOCF= Change in Operating Capabilities and Predictability. ΔOCF/ΔAccruals= Change in Cash and Non-cash transactions. ΔOCF/ΔTA= Change in Liquidity to Market Valuation; Future Cash Earnings Forecast. ΔNI/ΔAccruals= Change in Reporting Aggressiveness & Timeliness Loss of Recognition. ΔEPS/ΔMP= Change in Earnings Value Relevance. ΔNI/ΔBVPS= Change in Earnings Sensitivity to Book Value per Share (Accounting Valuation). ΔNI/ΔTA= Change in Accounting Quality.

[5] $Y_1$= ΔNI/ΔTA; c=constant predictor; $B_1$=influential factor for ΔNI/ΔOCF; $B_2$=influential factor for ΔOCF/ΔAccruals; $B_3$=influential factor for ΔOCF/ΔTA; $B_4$=influential factor for ΔNI/ΔAccruals; $B_5$=influential factor for ΔEPS/ΔMP; $B_6$=influential factor ΔNI/ΔBVPS; ϵ=error; $X_1$=value of ΔNI/ΔOCF; $X_2$=value of ΔOCF/ΔAccruals; $X_3$=value of ΔOCF/ΔTA; $X_4$=value of ΔNI/ΔAccruals; $X_5$=value of ΔEPS/ΔMP; and $X_6$=value of ΔNI/ΔBVPS. Confidence level (α) was set at 5 percent.

[6] ΔNI= Change in Accounting Quality. ΔEPS= Change in Earnings Value Relevance. ΔBVPS= Change in Earnings Sensitivity to Book Value per Share (Accounting Valuation). ΔMP= Change in Fair Value Measurement of the Firm. ΔOCF= Change in Operating Capabilities and Future Earnings. ΔAccruals= Change in Reporting Aggressiveness and Income Smoothing.

[7] $Y_2$= ΔNI; c=Constant predictor; $B_1$=Influential factor for ΔEPS; $B_2$=Influential factor for ΔBVPS; $B_3$=Influential factor for ΔMP; $B_4$=Influential factor for ΔOCF; $B_5$=Influential factor ΔAccruals; ϵ=Error; $X_1$=Value of ΔEPS; $X_2$=Value of ΔBVPS; $X_3$=Value of ΔMP; $X_4$=Value of ΔOCF; and $X_5$=Value of ΔAccruals. Confidence level (α) was set at 5 percent.

According to Barth et al. (2008), proxies for income smoothing are volatility of net income, ratio of volatility of net income to the volatility of cash flows, and the correlation between cash flows and accruals. The proxies for reporting aggressiveness are magnitude of signed accruals and timeliness of loss recognition. According to Ball et. al (2000), timely loss recognition is measured by focusing on both a large negative net income and the asymmetric incorporation of economic gains and losses into the reported income. According to Beaver (2002), value relevance is indicated by the statistical association between accounting information and market prices or returns.

## 4 Results

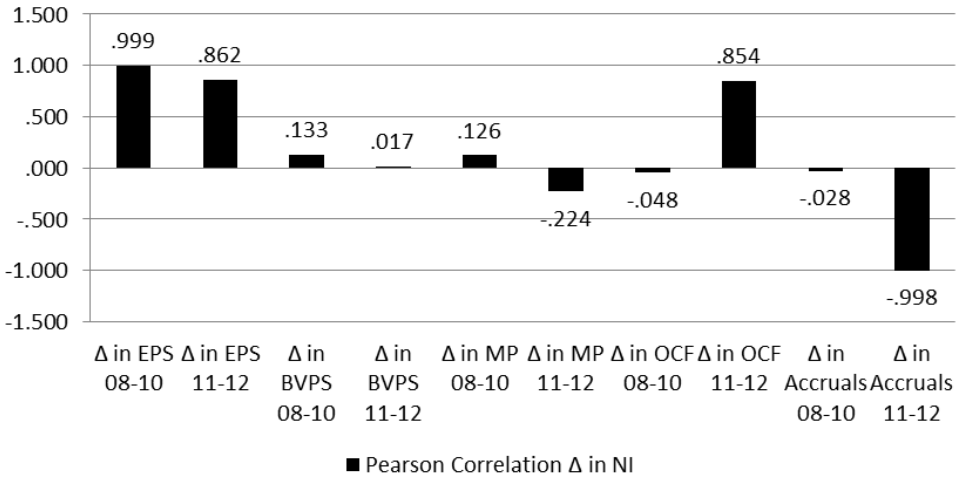
### *4.1 Correlations: statement of operations approach*

**Table 1.** Correlations

| Statement of Operations Approach | | Δ in EPS 08-10 | Δ in EPS 11-12 | Δ in BVPS 08-10 | Δ in BVPS 11-12 | Δ in MP 08-10 | Δ in MP 11-12 | Δ in OCF 08-10 | Δ in OCF 11-12 | Δ in Accruals 08-10 | Δ in Accruals 11-12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pearson Correlation | Δ in NI | .999 | .862 | .133 | .017 | .126 | -.224 | -.048 | .854 | -.028 | -.998 |
| | Δ in EPS | 1.000 | 1.000 | .139 | .060 | .109 | .073 | -.042 | .752 | -.027 | -.839 |
| | Δ in BVPS | | | 1.000 | 1.000 | -.024 | .487 | -.026 | .019 | .010 | -.017 |
| | Δ in MP | | | | | 1.000 | 1.000 | -.007 | -.194 | .077 | .264 |
| | Δ in OCF | | | | | | | 1.000 | 1.000 | .201 | -.857 |
| | Δ in Accruals | | | | | | | | | 1.000 | 1.000 |

The table 1 had shown the correlation results (statement of operations approach) between the Canadian GAAP and the IFRS periods from 2008 to 2012. Δ in EPS had changed from .999 under Canadian GAAP period to .862 under IFRS period, indicated that differences with respect to the persistency and predictability were found concerning the reported earnings under the Canadian GAAP and IFRS. Although these results at first sight had shown that under IFRS earnings exhibited lower persistency and predictability, perhaps due to the use of fair value accounting under IFRS period had created volatility. Therefore, these attributes had shown accounting quality had been reduced under IFRS. According to Schipper and Vincent (2003), permanent and less transitory earnings are more useful to the valuation process of a company, the earnings are judged to be of high (information) quality when they are highly persistent. Δ in BVPS had changed from -.224 under Canadian GAAP period to .017 under IFRS period, indicated that under IFRS earnings influence to book value per share for shareholders had increased, therefore, the quality of accounting had been improved. Δ in MP had changed from .147 under Canadian GAAP period to -.224 under IFRS period, indicated that under IFRS, the market price movement is less volatile or sensitive, a negative, to the market price, therefore reported earnings were more useful under IFRS period. Δ in OCF had changed from .289 under Canadian GAAP period to .854 under IFRS period, indicated that operating capability and future cash earnings had increased significantly under the IFRS accounting as such provides healthier cash predictability or financial cash outlook, and perhaps less manipulation of income by the management. Δ in Accruals had changed from -.062 under Canadian GAAP period to -.998 under IFRS period, indicated that under IFRS, had significantly reduced accruals (increased income smoothing, less timely loss recognition, and reduced certain accounting incentives) and therefore, reduced accounting quality. This result is similar to the result found by Ahmed, Neel, and Wang (2012) who stated that, the IFRS firms exhibit significant increases in income smoothing and aggressive reporting of accruals, and a significant decrease in timeliness of loss recognition. It is believed that the properties of accounting numbers such as earnings smoothness and magnitude of accruals are affected not only by the underlying economic determinants and exercise of managerial judgments but also by the nature of accounting standards. For example, the IFRS permits capitalizing development expenditures that were expensed under many domestic accounting standards. This has the effect of increasing earnings and reducing earnings volatility. Similarly, the IFRS requires goodwill impairment rather than systematic amortization. Again, this would increase accruals and earnings except during periods when goodwill is impaired. Another example of a potentially significant change in accruals is recognition of employee benefit expenses that were not recognized prior to IFRS adoption. This would reduce accruals and earnings but potentially increase smoothing. The broader point is that the adoption of certain standards could alter the properties of earnings without necessarily changing accounting quality. Following figure 1 is the comparative results as discussed above:

**Figure 1.** Comparison Pre-IFRS to (2008-2010) to IFRS (2011-2012): Statement of Operations Approach (Income Statement)




### *4.2 Correlations: statement of financial position approach*

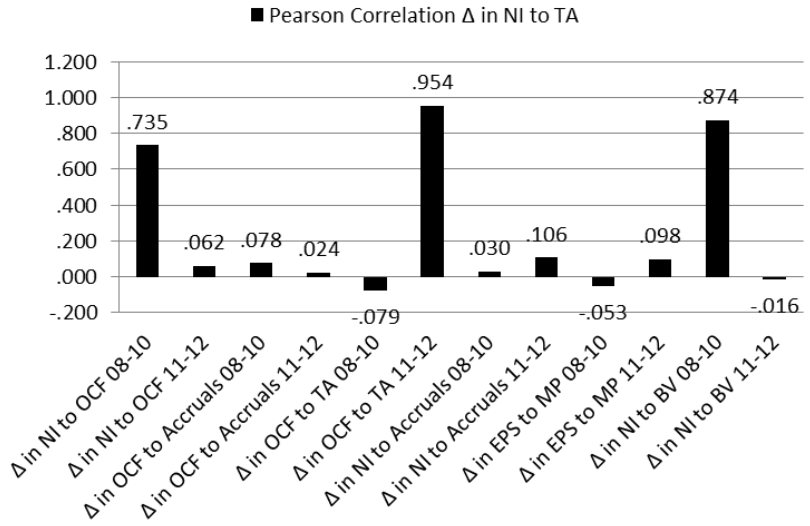
**Table 2.** Correlations

| Statement of Financial Position Approach | | Δ in NI to OCF 08-10 | Δ in NI to OCF 11-12 | Δ in OCF to Accruals 08-10 | Δ in OCF to Accruals 11-12 | Δ in OCF to TA 08-10 | Δ in OCF to TA 11-12 | Δ in NI to Accruals 08-10 | Δ in NI to Accruals 11-12 | Δ in EPS to MP 08-10 | Δ in EPS to MP 11-12 | Δ in NI to BV 08-10 | Δ in NI to BV 11-12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pearson Correlation | Δ in NI to TA | .653 | .457 | -.030 | -.283 | .194 | .049 | .145 | .651 | .288 | .801 | -.136 | .018 |
| | Δ in NI to OCF | 1.000 | 1.000 | -.145 | -.221 | -.144 | .071 | .030 | .069 | .047 | .276 | .145 | -.224 |
| | Δ in OCF to Accruals | | | 1.000 | 1.000 | .125 | -.436 | .773 | .402 | .058 | -.330 | .027 | .181 |
| | Δ in OCF to TA | | | | | 1.000 | 1.000 | .164 | .025 | -.098 | .019 | .100 | -.514 |
| | Δ in NI to Accruals | | | | | | | 1.000 | 1.000 | .079 | .715 | .036 | .051 |
| | Δ in EPS to MP | | | | | | | | | 1.000 | 1.000 | .014 | .070 |
| | Δ in NI to BV | | | | | | | | | | | 1.000 | 1.000 |

The table 2 had shown the correlation results (statement of financial position approach) between the Canadian GAAP and IFRS from 2008 to 2012. ΔNI to ΔOCF had changed from .653 under Canadian GAAP period to .457 under IFRS period, indicated that under IFRS, cash earnings, operating capabilities, and predictability of earnings had decreased as such, the earnings are characterized as lower quality. ΔOCF to ΔAccruals had changed from -.03 under Canadian GAAP period to -.283 under IFRS period, indicated that correlations between them had reduced however, no direct effect on accounting quality. ΔOCF to ΔTA had changed from .194 under Canadian GAAP period to .049 under IFRS period, indicated that significant decline in this correlation was perhaps due to the fair market valuation of the assets. ΔNI to ΔAccruals had changed from .145 under Canadian GAAP period to .651 under IFRS period, indicated that increased in reporting aggressiveness (less accruals) and reduced timeliness of loss recognition, consistent with the earlier finding on Δ in Accruals under statement of operations approach. Therefore, increased in reporting aggressiveness had reduced the quality of accounting, perhaps indicated that the Canadian GAAP is more stringent towards managerial discretion than IFRS (inherently lacked detailed implementation guidance and thus permit managers with greater flexibility) in energy companies. ΔEPS to ΔMP had changed from .288 under Canadian GAAP period to .801 under IFRS period, indicated that there was an increase in value relevance (earnings sensitivity or usefulness to market price). That is, the accounting earnings are more useful to market valuation purposes; however, the earnings may provide little additional information about managing performance. Nevertheless, increased in value relevance under IFRS had improved the accounting quality. According to Ball and Brown (1968), if efficient capital market will adjust to newly

released information that is, useful in forming asset prices from reported earnings, indicative of higher accounting quality earnings. ΔNI to ΔBVPS had changed from -.136 under Canadian GAAP period to .018 under IFRS period, indicated that the valuation usefulness of IFRS earnings to book value per share had increased, therefore, accounting quality under IFRS had been improved. Following figure 2 is the comparative results as discussed above:

**Figure 1.** Comparison Pre-IFRS to (2008-2010) to IFRS (2011-2012): Statement of Financial Position Approach (Balance Sheet)




## *4.3 Regression coefficients*

### *4.3.1 Statement of Operations Approach*

Canadian GAAP: $Y_{2008\text{-}2010}=.066+1.055X_1-.031X_2+.015X_3-.005X_4+.002X_5$
(Appendix D –Table 6)

IFRS: $Y_{2011\text{-}2012}=.908+3.541X_1-.105X_2+7.046X_3-.071X_4-3.715X_5$
(Appendix D –Table 6)

### *4.3.2 Statement of Financial Position Approach*

Canadian GAAP: $Y_{2008\text{-}2010}=-.399+.639X_1-.017X_2+1.189X_3+.014X_4+3.289X_5-.013X_6$
(Appendix D – Table 6)

IFRS: $Y_{2011\text{-}2012}=.594+.217X_1+.220X_2+.161X_3+.003X_4+.952X_5+.011X_6$
(Appendix D – Table 6)

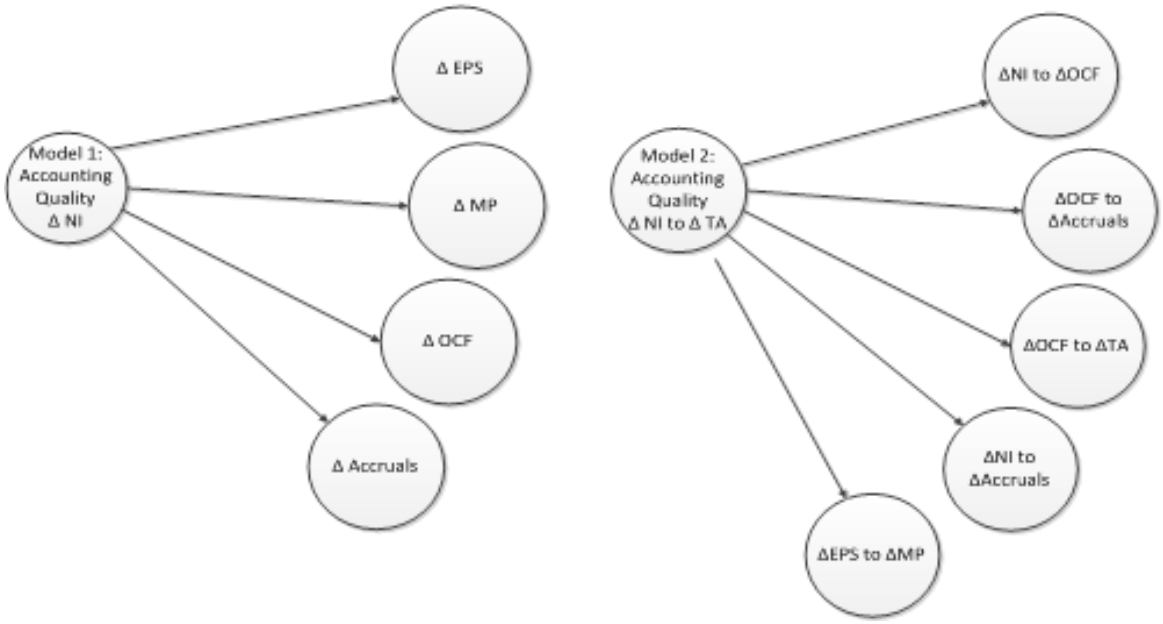
The empirical coefficients under the statement of operations approach for the IFRS period in the table 6 (appendix D), it was found that $B_1$ and $B_3$ were higher relative to the Canadian GAAP, indicated that these betas were significant in the regressions, providing much clearer evidence that positive and negative shocks are transitory for the IFRS firms. However, it was found that $B_2$, $B_4$, and $B_5$ were negatively lower relative to the Canadian GAAP, indicated that these betas were non-significant in the regression. According to Brauer and Westermann (2010), who stated that a negative coefficient on the betas would imply a smooth (non-oscillating) impulse-response pattern. The larger the B, the faster is the reversion to the mean. $B_1$ (ΔEPS) and $B_3$ (ΔMP) are > 0 indicated that, significant influence to the predictability and value relevance. However, $B_2$ (ΔBVPS), $B_4$ (ΔOCF), and $B_5$ (ΔAccruals) were < 0, indicated that, BVPS and OCF had weak negative influence on earnings; and for accruals, negative losses had been recognized more timely than gains. Similarly, it was found that the coefficients under the statement of financial position approach for the IFRS period in the table 6 (appendix D), $B_2$ and $B_6$ were higher relative to the Canadian GAAP, indicated that these betas were positively influenced the IFRS regression model. However, $B_1$, $B_3$, $B_4$, and $B_5$ were lower relative to the Canadian GAAP, indicated that these betas were weakly influenced the IFRS regression. In the IFRS regression, $B_1$ (ΔNI to ΔOCF), $B_2$ (ΔOCF to ΔAccruals), $B_3$ (ΔOCF to ΔTA), $B_4$ (ΔNI to ΔAccruals), $B_5$ (ΔEPS to ΔMP), $B_6$ (ΔNI to ΔBV) were > 0 indicated that, influence to the cash forecasting, predictability of future earnings, value relevance, and reporting aggressiveness. In addition, the F-tests results (large numbers characterized statistical models usefulness) as provided in the table 5 of the appendix C, had shown that IFRS models were relative less useful in both statement of operations and statement of financial position approaches. That is, the Canadian regression models had a relatively stronger relationship between independent and independent variables. In addition, under statement of operations approach, the F-values

were considerably higher under the Canadian GAAP and IFRS, relative to the statement of financial position. Therefore, the statement of operations approach models were more useful than the statement of financial position approach models, yet both types of regression models were statistically valid to draw conclusions on the accounting quality between the Canadian GAAP and IFRS.

The table 3 (appendix A), under the Canadian GAAP and IFRS periods, had shown average $R^2$ (timeliness) of 99.9%. The table 4 (appendix B) under the Canadian GAAP period had shown average $R^2$ of 67.4%; and under the IFRS period had shown average $R^2$ of 73.7%. Therefore, all these $R^2$ had high persistent earnings; that is, the predictive value of earnings, represented by the variance in the persistency of the earnings had a high certainty (low degree of variance) in the future earnings. Beijerink (2008) found in his research that both IFRS and US-GAAP earnings were highly persistent, that is, $R^2$ of 82.6% for the IFRS pooled sample relative to 65.9% for the US-GAAP pooled sample. In the research of Jennings (2003) the researchers found similar results for the timeliness. However, Francis et al. (2004) found an average $R^2$ of 21.9% for the sample consisting of a large number of US firms for the period 1975-2001.

Following figure 3 is the derived statistical models for the accounting quality resulted from the correlation results. That is, the accounting quality can be determined through the application of variables in the respective models for accruals (income smoothing and timeliness loss recognition); reporting aggressiveness; earnings persistency; value relevance; predictability; managerial discretion; and enforcement.

**Figure 3.** Accounting quality




## 5 Conclusion

Globally, the use of the IFRS in financial reporting is the requirement for many countries primarily due to the influence of investors/shareholders demand, cost minimization in financial reporting, security listings requirements, foreign investments, free trade, and global competition. However, the question of whether such a global transition towards a single set of accounting standards has been met by the presumed benefits of higher accounting quality and comparability yet remains unanswered. To contribute to our knowledge in this topic this research has investigated whether the mandatory IFRS adoption in the Canadian energy and mining companies improves firms' financial reporting in terms of accounting quality. This research finds that earnings quality has increased due to the lower volatility between earnings and market price; enhance predictability in cash flows and financial forecasting (cash related); and stronger influence of earnings to shareholder value. However, it also finds that earnings quality has reduced due to lower persistency and predictability; and less accruals and timeliness loss of recognition (increase in income smoothing). Moreover, this research finds that the results are consistent with both information and comparability effects between the two approaches of the statement of operations and the statement of financial position. Forecast accuracy improves more for liquidity than earnings. This research also find that no evidence suggesting that the decrease in earnings forecast accuracy is driven by earnings manipulation, as have an increased correlation between earnings and market price.

These results were possible after assuming three limitations. First, the assumption that if the IFRS

adoption has resulted in an increase or decrease in accounting quality is conditional on the presumption that the change in the accounting quality measures is driven principally by the changes in managerial discretion or the exercise of judgment rather than by changes in properties of accounting naturally resulting from the new standards. Second, the study focuses on the period from 2008 to 2012. Third, to minimize the market volatilities and data collection consistencies, all fifteen large energy companies are consistently profitable, and have regularly filled financial documents with the Ontario Security and Exchange Commission.

## References


1. Ahmed, A. S., Neal, M. J., and Wang, D., (2013), "Does Mandatory Adoption of IFRS Improve Accounting Quality, Preliminary Evidence", Forthcoming, *Contemporary Accounting Research*.
2. Armstrong, C. S., Barth, M., Jagolinzer, A., and Riedl, E., (2010), "Market reaction to the adoption of IFRS in Europe", *Accounting Review, 85* (1), 31-61.
3. Ashbaugh, H., and Pincus, M., (2001), "Domestic accounting standard, international accounting standards, and the predictability of earnings", *Journal of Accounting Research, 39*, 417–434.
4. Atwood, T., Drake, M., Myers, J., and Myers, L., (2011), "Do earnings reported under IFRS tell us more about future earnings and cash flows?", *Journal of Accounting and Public Policy 30*, 103–121.
5. Ball, R., Shivakumar, L., (2005), "Earnings quality in UK private firms: comparative loss recognition timeliness", *Journal of Accounting & Economics, 39*, 83-128.
6. Ball, R., (2006), "International financial reporting standards (IFRS): Pros and cons for Investors", *Accounting and Business Research* (International Accounting Policy Forum), 5−27.
7. Ball, R., Kothari, S.P., and Robin, A., (2000), "The effect of international institutional factors on properties of accounting earnings", *Journal of Accounting and Economics, 29* (1), 1- 51.
8. Barth, M., Landsman, W., and Lang, M., (2008), "International accounting standards and accounting quality", *Journal of Accounting Research, 46* (3), 467-98.
9. Basu, S., (1997), "The conservative principle and the asymmetric timeliness of earnings", *Journal of Accounting and Economics, 24* (1), 3-37.
10. Boonlert, K., (2004), "Earnings Properties and Investor Protection: International Evidence", *Oklahoma State University*.
11. Brauer, S. and Westermann, F., (2010), "A Note on the Time Series Measure of Conservatism", *CESifo Working Paper No. 2968*.
12. Bryman, A., and Bell, E., (2003), *Business Research Methods*, New York, Oxford University Press.
13. Buck, T., Bruce, A., Main, B. G. M., and Udueni, H., (2003), "Long term incentive plans, executive pay and UK company performance", *Journal of Management Studies, 40* (7), 1709-1727.
14. Burgstahler, D., Hail, L., and Leuz, C., (2006), "The importance of reporting incentives: Earnings management in European private and public firms", *Accounting Review, 81* (5), 983-1016.
15. Burns, Robert E., (2000), *Introduction to Research Methods*, Sage Publications Ltd., 4th Edition.
16. Chen, H., Tang, Q., Jiang, Y., and Lin, Z., (2010), "The role of international financial reporting standards in accounting quality: Evidence from the European Union", *Journal of International Financial Management & Accounting, 21* (3), 220-278.
17. Choi, F.D.S., and Meek, G., (2005), *International Accounting*, 5th Edition, Prentice-Hall.
18. Christensen, H., Lee, E., and Walker, M., (2009), "Do IFRS reconciliations convey information?, The effect of debt contracting", *Journal of Accounting Research, 47*, 1167– 1199.
19. Christensen, H., Lee, E., and Walker, M., (2008), "Incentives or standards: What determines accounting quality changes around IFRS adoption?", *Working paper*, University of Minnesota.
20. Creswell, John W., (2009), *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 3rd Edition, Los Angeles, Sage Publications Inc.
21. Daske, H. L., (2006), "Economic benefits of adopting IFRS or US GAAP – How the expected cost of equity capital really decreased?", *Journal of Business Finance & Accounting, 33* (3-4), 379-373.
22. Daske, H., Hail, L., Leuz, C., and Verdi, R., (2008), "Mandatory IFRS reporting around the world: Early evidence on the economic consequences", *Journal of Accounting Research 46* (5), 1065-10142.
23. Dechow, P., and Dichev, I., (2002), "The quality of accruals and earnings: the role of accrual estimation errors", *The Accounting Review, 77*, 35-59.
24. Ewert, R., and Wagenhofer, A., (2005), "Economic effects of tightening accounting standards to restrict earnings management", *Accounting Review, 80* (4), 1101-24.
25. Fielding, Nigel G., and Fielding , Jane L. (1985), Linking Data, *Qualitative Research Methods, 4*, 96-101.
26. Francis, J., LaFond, R., Olsson, P. and Schipper, K., (2005), "The market pricing of accruals Quality", *Journal of Accounting and Economics, 39* (2), 295–327.
27. Francis, J., & Schipper, K., (1999), "Have Financial Statements Lost Their Relevance?", *Journal of Accounting Research, 37(2)*, 319-352.
28. Holthausen, R.W., (2009), "Accounting Standards, Financial Reporting Outcomes, and Enforcement", *Journal of Accounting Research, 47* (2): 447-458.
29. Hope, O., (2003). "Disclosure practices, enforcement of accounting standards, and analysts' forecast accuracy: An international study", *Journal of Accounting Research, 41* (2), 235- 272.
30. Horton, J., Serafeim, G., and Serafeim, I., (2013), "Does mandatory IFRS adoption improve the information environment?", *Harvard Business Review*, 1-58.
31. Hung, M., and Subramanyam, K. R., (2007), "Financial statement effects of adopting International Accounting Standards: the case of Germany", *Review of Accounting Studies, 12*(4), 623–657.
32. Jeanjean, T., and Stolowy, H., (2008), "Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption", *Journal of Accounting and Public Policy, 27* (6), 480–94.

33. Kim, O. and Suh, Y., (1993), "Incentive efficiency of compensation based on accounting and market performance", *Journal of Accounting and Economics, July*, 25-53.
34. Lang, M., Raedy, J., and Wilson, W., (2006), "Earnings management and cross listing: Are reconciled earnings comparable to U.S. earnings?", *Journal of Accounting and Economics, 42(1/2),* 255-283.
35. Langmead, J. M., and Soroosh, J., (2009), "International financial reporting standards: The road ahead", *CPA Journal, 79* (3), 16−24.
36. Larsen, Richard J., and Morris L. Marx. , (2001), *An Introduction to Mathematical Statistics and its Applications*, 3rd ed. Upper Saddle River, NJ: Prentice Hall.
37. Leuz, C., Nanda, D., and Wysocki, P. D., (2003), "Earnings management and investor protection: An international comparison", *Journal of Financial Economics, 69*, 505−27.
38. Main, Brian G. M., and Johnston, J., (1993), "Remuneration Committees and Corporate Governance Accounts", *Accounting and Business Research, 23* (9), 357-362.
39. McKnight, P. J., and Tomkins, C., (1999), "Top executive pay in the United Kingdom: a corporate governance dilemma", *International Journal of the Economics of Business* 6(2), 223-243.
40. Nelson, Mark W., Elliott, John A., Tarpley, L., (2003), "How are earnings managed?, Examples from auditors", *Accounting Horizons, Supplement*, 17-35.
41. Paananen, M., (2008), "Fair value accounting for goodwill under IFRS: An exploratory study of the comparability in France, Germany, and the United Kingdom", *Working paper,* Retrieved from SSRN, No. 1275803, July 26, 2011.
42. Paananen, M., and Lin, C., (2007), "The development of accounting quality of IAS and IFRS over time: The case of Germany", *Working paper*, University of Hertfordshire.
43. Penman, S. H., (2007), "Financial reporting quality: is fair value a plus or minus?", *Accounting and Business Research, 37* (Special Issue), 33-44.
44. Richard, J., (2004), "The Secret Past of Fair Value : Lessons from History Applied to the French Case", *Accounting in Europe I.*
45. Schipper, K., and Vincent, L., (2003), "Earnings quality", *Accounting Horizons, 17* (Supplement), 97-110.
46. Soderstrom, N., and Sun, K., (2007), "IFRS adoption and accounting quality: A review", *European Accounting Review, 16* (4), 675−702.
47. Voulgaris, G., Stathopoulos, K., and Walker, M., (2011), "IFRS and the Use of Accounting-Based Performance Measures in Executive Pay", *Working paper*, University of Edinburgh, Retrieved from SSRN No.1883249.
48. Warfield, T. and Wild, J., (1992), "Accounting Recognition and the Relevance of Earnings as an Explanatory Variable for Returns", *Accounting Review, 67* (4), 821-842.
49. Yates, Daniel S., (2008), *The Practice of Statistics*. 3rd Edition.
50. Zenaida, R., and Fernando, Rajulton, (2000), "Theoretical and Analytical Aspects of Longitudinal Research", *PSC Discussion Papers Series, 14* (5), Article 1.


## Appendices

## Appendix A

Appendix A: Table 3

Model Summaryb Canadian (2008-2010): Statement of Operations Approach

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change | |
| 1 | .999[a] | .999 | .998 | .11710 | .999 | 5034.731 | 5 | 35 | .000 | 2.068 |

Model Summaryb IFRS (2011-2012): Statement of Operations Approach

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change | |
| 1 | 1.000[a] | .999 | .999 | 14.01480 | .999 | 30820.150 | 5 | 91 | .000 | 2.104 |

a. Predictors: (Constant), Δ in Accruals, Δ in BVPS, Δ in MP, Δ in OCF, Δ in EPS

b. Dependent Variable: Δ in NI

## Appendix B

**Appendix B: Table 4**

Model Summaryb Canadian (2008-2010): Statement of Financial Position Approach

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Change | F Change | df1 | df2 | Change | |
| 1 | .821[a] | .674 | .619 | 1.77659 | .674 | 12.396 | 6 | 36 | .000 | 1.343 |

a. Predictors: (Constant), Δ in NI to BV, Δ in OCF to TA, Δ in EPS to MP, Δ in NI to Accruals, Δ in OCF to Accruals, Δ in NI to OCF

b. Dependent Variable: Δ in NI to TA

Model Summaryb IFRS (2011-2012): Statement of Financial Position Approach

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Change | F Change | df1 | df2 | Change | |
| 1 | .859[a] | .737 | .669 | 2.49413 | .737 | 10.761 | 6 | 23 | .000 | 1.900 |

a. Predictors: (Constant), Δ in EPS to MP, Δ in OCF to Accruals, Δ in NI to OCF, Δ in OCF to TA, Δ in NI to Accruals

b. Dependent Variable: Δ in NI to TA

## Appendix C

**Appendix C: Table 5**

ANOVAa Canadian GAAP (2008-2010): Statement of Operations Approach

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 345.203 | 5 | 69.041 | 5034.731 | .000[b] |
| Residual | .480 | 35 | .014 | | |
| Total | 345.683 | 40 | | | |

ANOVAa IFRS (2011-2012): Statement of Operations Approach

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 30267656.648 | 5 | 6053531.330 | 30820.150 | .000[b] |
| Residual | 17873.740 | 91 | 196.415 | | |
| Total | 30285530.388 | 96 | | | |

ANOVAa Canadian GAAP (2008-2010): Statement of Financial Position Approach

| | Squares | df | Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 234.750 | 6 | 39.125 | 12.396 | .000[b] |
| Residual | 113.625 | 36 | 3.156 | | |
| Total | 348.375 | 42 | | | |

ANOVAa IFRS (2011-2012): Statement of Financial Position Approach

| | Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 401.628 | 6 | 66.938 | 10.761 | .000[b] |
| Residual | 143.075 | 23 | 6.221 | | |
| Total | 544.703 | 29 | | | |

a. Dependent Variable: Δ in NI to TA

b. Predictors: (Constant), Δ in EPS to MP, Δ in OCF to Accruals, Δ in NI to OCF, Δ in OCF to TA, Δ in NI to Accruals

## Appendix D

Appendix D: Table 6

| Coeffficients: Statement of Operations Approach: Canadian GAAP (2008 - 2010) | | | | | | Coeffficients: Statement of Operations Approach: IFRS (2011 -2012) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | | | B | Std. Error | Beta | | |
| (Constant) | .066 | .024 | | 2.758 | .009 | (Constant) | .908 | 1.507 | | .602 | .548 |
| Δ in EPS | 1.055 | .007 | 1.000 | 147.377 | .000 | Δ in EPS | 3.541 | .454 | .046 | 7.807 | .000 |
| Δ in BVPS | -.031 | .039 | -.005 | -.787 | .436 | Δ in BVPS | -.105 | .015 | -.022 | -7.100 | .000 |
| Δ in MP | .015 | .013 | .007 | 1.156 | .256 | Δ in MP | 7.046 | .680 | .040 | 10.355 | .000 |
| Δ in OCF | -.005 | .023 | -.001 | -.221 | .826 | Δ in OCF | -.071 | .023 | -.015 | -3.074 | .003 |
| Δ in Accruals | .002 | .002 | .005 | .807 | .425 | Δ in Accruals | -3.715 | .027 | -.983 | -135.178 | .000 |
| a. Dependent Variable: Δ in NI | | | | | | | | | | | |
| Coefficients: Statement of Financial Approach: Canadian GAAP (2008 - 2010) | | | | | | Coeficients: Statement of Financial Approach: IFRS (2010 -2012) | | | | | |
| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | | | B | Std. Error | Beta | | |
| (Constant) | -.399 | .290 | | -1.375 | .178 | (Constant) | .594 | .562 | | 1.056 | .302 |
| ΔNI to ΔOCF | .639 | .090 | .721 | 7.105 | .000 | ΔNI to ΔOCF | .217 | .082 | .319 | 2.655 | .014 |
| ΔOCF to ΔAccruals | -.017 | .055 | -.049 | -.314 | .755 | ΔOCF to ΔAccruals | .220 | .285 | .104 | .772 | .448 |
| ΔOCF to ΔTA | 1.189 | .341 | .345 | 3.488 | .001 | ΔOCF to ΔTA | .161 | .257 | .087 | .627 | .537 |
| ΔNI to ΔAccruals | .014 | .023 | .092 | .592 | .557 | ΔNI to ΔAccruals | .083 | .049 | .276 | 1.684 | .106 |
| ΔEPS to ΔMP | 3.289 | 1.103 | .287 | 2.981 | .005 | ΔEPS to ΔMP | .952 | .286 | .544 | 3.328 | .003 |
| ΔNI to ΔBVPS | -.013 | .004 | -.282 | -2.903 | .006 | ΔNI to ΔBVPS | .001 | .001 | .063 | .486 | .632 |
| a. Dependent Variable: ΔNI to ΔTA | | | | | | | | | | | |