Does IFRS Adoption Influence Financial Reporting?: An Empirical Study on Financial Institutions

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This paper primarily examines the effect of the mandatory International Financial Reporting Standards (IFRS) adoption in Canada by Canadian financial institutions. It is a comparative study between the Canadian GAAP financial reporting from 2008 to 2010 and IFRS financial reporting from 2011 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 influence financial reporting? This research finds that earnings quality has increased due to an increase in value relevance (earnings influence to market price), increase in persistency and predictability in earnings and cash flows, increased influence of earnings to shareholder value, and increase in accruals and timeliness loss of recognition (reduce in income smoothing). However, it also finds that valuation usefulness of earnings to book value per share (accounting valuation) has reduced.

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 proposes that examining the Canadian experience (recently adopted IFRS in 2011) may provide relevant information based on its culture and capital market, as previous studies did when the European countries adopted IFRS in 2005. It is also believed that results from this study will provide relevant information to United States accounting scholars and standard setter (FASB), as both countries GAAPs are comparable and the respective capital markets are similar in nature. That is, the research findings will provide some useful hints as to what the U.S. firms and markets should expect from the adoption of the IFRS.

From 2011, the Canadian public companies were required to report the financial information using the International Financial Reporting Standards – a change of reporting culture from the Canadian GAAP. For two decades, Canada's accounting standard setter had a convergence policy towards the U.S. GAAP, primarily adopting the U.S. standards with some modification or reconciliation (mostly in the culture of rule-based standards, a stringent application of accounting regulations). The purpose of this preliminary empirical research on the IFRS, primarily characterized as a principal-based standard (difficult to circumvent provision in the form of transaction), in Canada, is to investigate whether the adoption of the IFRS by the Canadian financial institutions enhances accounting reporting quality. To do so, as demanded each time the IFRS were implemented in respective countries, this research pursued a comparative approach. First, it studied the pre-IFRS period (2008-2010) under the Canadian GAAP, then compared that with the present IFRS period (2011-2012), in order to better understand the nature of 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 showed 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 derived from the measurement of timely loss recognition indicated that the IFRS adoption was associated with a decrease in the timeliness of the recognition of large losses 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 increased the combined value relevance of the book value and earnings in particular, while the outcomes of relative value relevance analysis highlighted that earnings markedly improve the ability to explain stock prices in the post-adoption period compared to the pre-adoption one.

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). That is, under the IFRS, statement of operations items are detailed in nature and include items such as amortization, purchases of materials, transportation costs, employee benefits, advertising costs, cost of sales, and cost of distribution. It is theoretically believed that the adoption of the IFRS is associated with 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 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 accounting numbers such as earnings smoothness and magnitude of accruals were 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, the IFRS permitted capitalizing development expenditures that were expensed under many domestic accounting standards. This increased earnings and reduced earnings volatility. Similarly, the IFRS required goodwill impairment rather than systematic amortization. Again, this increased accruals and earnings except during periods when goodwill was impaired. Another example of a potential significant change in accruals was the recognition of employee benefit expenses that were not recognized prior to the IFRS adoption. This could reduce accruals and earnings but also potentially increase smoothing. The broader point was 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 were important to a firm because they were used as a summary measure of the performance of a firm by a large variety of users. Earnings were said to be persistent when they recurred over time, or when they were sustainable or permanent. It also referred to the extent to which an innovation (unexpectedness) in the earnings series caused investors to revise their future earnings expectations (Boonlert, 2004). Researchers measured the persistency of earnings by looking at the explanatory power of the past earnings in relation to present earnings. When the past earnings were not associated with the present earnings, the earnings were not persistent or recurring. Predictability was defined as the ability of current earnings to predict future earnings and cash flows from operations. Current and also past earnings were the input for forecasting the future earnings/cash flows. Smoothness was measured by the amount of variability of the cash flow and the variability of earnings (Leuz, Nanda, & Wysocki, 2003). Also, smoothness could be seen as a desirable earning attribute as managers used information about their future income to smooth out momentary fluctuations. This gave more representative reported earnings, as these earnings contained future information. Value relevance was determined by measuring the correlation between the income variables (e.g., EPS) and the market price per share. According to Lang, Raedy, and Wilson (2006), stock prices could be explained as a multiple of earnings. Market prices followed 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 were. Since more value relevant earnings would describe the firm's asset price more accurately, earnings were judged to be of high quality when they were high value relevant. Warfield and Wild (1992) suggested that the market returns should lead annual earnings and have a predictive power over the investors. If earnings had 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.

Literature Review

Penman (2007) stated that the quality of earnings was based on the earnings persistency, and predictive ability of the earnings. The view was that earnings were to be of high quality when the firm's past earnings were strongly associated with its future earnings. Other researchers viewed earnings to be of higher quality when earnings were value relevant; for example, the earnings were strongly associated with the security's price (Francis & Schipper, 1999). Voulgaris, Stathopoulos, and Walker (2011) believed that IFRS added noise to accounting numbers that made reported earnings less useful for evaluating managerial performance. This was mainly due to the adoption of the fair value accounting, which potentially made 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 served (i.e., stewardship/performance contracting). In other words, as accounting numbers were designed to conform more and more closely with market values, the less they were able to provide information over what was complementary to market values for evaluating performance. Similarly, Kim and Suh (1993) believed that if accounting numbers became more sensitive to market movements, then the accounting-related signals provided little additional information about managing performance, as they no longer screened out market-related noise. Moreover, the move to fair value accounting caused accounting earnings figures to be more volatile (Barth, Landsman, & Lang, 2008). If the increase in earnings volatility was driven by events almost entirely outside the control of management, this also reduced the attractiveness of the earnings as a basis for performance-based contracts. Ball (2006) and Choi and Meek (2005) believed that the IFRS had 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) noted 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 arose from inherent estimation error and possible managerial manipulation. Ahmed, Neel, and Wang (2012) stated that, the effects of the mandatory IFRS adoption on the accounting quality critically depended upon whether the IFRS was of higher or lower quality than domestic GAAP and how they affected the efficacy of enforcement mechanisms. By a higher quality standard, they meant a standard that either reduced managerial discretion over accounting choices or inherently disallowed smoothing or overstatement of earnings. If IFRS were of higher quality than domestic GAAP, and they were appropriately enforced, then one would expect mandatory adoption of IFRS to improve accounting quality. On the other hand, if IFRS were of lower quality than domestic GAAP or if IFRS weakened enforcement (i.e., because of increased discretion or flexibility) then it would potentially reduce accounting quality. Thus, the impact of IFRS on the accounting quality was an empirical question. This was supported by Leuz et al. (2003), Barth et al. (2008), Christensen, Lee, and Walker (2009), and Chen et al. (2010), who believed that accounting choices that resulted 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, reduced accounting quality. Similarly, Barth et al. (2008) presented three reasons why the adoption of the IFRS could lead to improvements in the accounting quality. First, the IFRS eliminated certain accounting alternatives, thereby reducing managerial discretion. This could reduce the extent of opportunistic earnings management and thus improved accounting quality (Ewert & Wagenhofer, 2005). Second, IFRS was viewed as a set of principles-based standards and thus were 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 permitted measurements such as use of fair value accounting which better reflected the underlying economics than domestic standards. At the same time, Barth et al. (2008) also noted two reasons why the adoption of IFRS may reduce accounting quality. First, IFRS could eliminate accounting alternatives that were most appropriate for communicating the underlying economics of a business, forcing managers of these firms to use less appropriate alternatives and thus result in a reduction in accounting quality. Second, because the IFRS were principles-based, they inherently lacked a detailed implementation guidance and thus afforded managers greater flexibility (Langmead & 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 were interpreted and implemented. Given a manager's incentive to exploit accounting discretion to their advantage which was documented in prior studies such as Leuz et al. (2003), the increase in discretion due to lack of implementation guidance was likely to lead to more earnings management and thus lower accounting quality, *ceteris paribus*.

Ahmed et al. (2012) stated that previous studies focused on a number of institutional factors that impacted accounting quality. The evidence in previous studies suggested that the accounting quality was generally higher in strong enforcement countries relative to weak enforcement countries. This in turn suggested that there may have been systematic differences in the effects of the IFRS adoption in strong enforcement versus weak enforcement countries. However, it was very difficult to make definitive predictions because the change in accounting quality from the pre-IFRS periods to the post-IFRS periods depended upon: (1) whether the IFRS was of higher or lower quality than the domestic GAAP (i.e., whether they increase or decrease overall managerial discretion); and (2) on the efficacy of enforcement mechanisms. For strong enforcement countries, if IFRS were of higher quality than domestic GAAP and they were appropriately enforced, an improvement in accounting quality could be expected. For example, if IFRS eliminated accounting alternatives that were opportunistically used by the managers, the elimination of these alternatives would improve the accounting quality. They also believed that strong enforcement partition had a significantly higher average rule of law score. That is, firms in the strong enforcement partition had 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 were of lower quality than domestic GAAP in the sense that they increased managerial discretion, accounting quality would

decline even in strong enforcement countries given that managers had incentives to exercise their discretion in their own interests. Furthermore, the accounting quality may decline after the mandatory IFRS adoption because principles-based standards were looser, on average, than domestic standards and thus, more difficult to enforce. Nelson, Elliott, and Tarpley (2003) concluded that the aggressiveness of reporting decisions increased 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 could result in more opportunistic choices. This idea was supported by Paananen and Lin (2007), who found evidence of a decline in accounting quality in Germany, a strong enforcement country, after the mandatory IFRS adoption. Ball, Kothari, and Robin (2000) believed that in the absence of suitable enforcement mechanisms, real convergence and harmonization was infeasible, resulting in diminished comparability. Collectively, these studies suggested that loose standards could 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 that of Leuz et al. (2003), Burgstahler, Hail, and Leuz (2006), Holthausen (2009), and Hope (2003) argued that rules or standards were generally not effective without adequate enforcement and even the best accounting standards would be inconsequential. Extending this logic, even if the IFRS were of a higher quality than a domestic GAAP, they would be unlikely to result in improvements in accounting quality in weak enforcement countries because they were unlikely to be properly enforced. Therefore, a change in accounting quality cannot be expected after the mandatory IFRS adoption for firms in weak enforcement countries.

Ahmed et al. (2012) also found in their study that there was an increase in income smoothing for the IFRS firms relative to benchmark firms after the mandatory IFRS adoption. Specifically, they found a significant decrease in 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 found evidence of a significant increase in aggressive reporting of accruals for the IFRS firms relative to benchmark firms. Third, they found evidence of a significant reduction in the 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 was consistent with meeting or beating earnings targets after controlling for variable management in benchmark firms. In addition, they stated that while the evidence was not fully consistent across all proxies, taken together, the results suggested that the accounting quality decreased after the mandatory IFRS adoption. Ball et al. (2000) found that the timeliness of loss recognition decreased significantly after the mandatory IFRS adoption, relative to benchmark firms. Similarly, Paananen (2008) and Paananen and Lin (2007) found in their results that there was 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) found no decline in the pervasiveness of the earnings management in Austria and UK, but an increase in France. Christensen et al. (2008) found that the incentives dominated standards in determining accounting quality around mandatory IFRS adoption. Daske et al. (2008) showed that the capital market benefits around

the mandatory adoption of the IFRS were unlikely to exist primarily because of IFRS adoption. Daske (2006) found no evidence that the IFRS adoption decreased a firm's cost of capital. Atwood et al. (2010) found that the earnings reported under the IFRS were no more or less persistent and were no more or less associated with the future cash flows than earnings reported under the local GAAP. In addition, they suggested that the documented increase in analyst forecast accuracy following the IFRS was not the result of the differences in the underlying persistence of those earnings. Hung and Subramanyam (2007) reached similar conclusions about accounting quality for German voluntary adopters between 1998 and 2002. Horton, Serafeim, and Serafeim (2013) found that forecast accuracy improved significantly after the mandatory IFRS adoption relative to firms that did not adopt IFRS. In addition, the larger the difference between IFRS and local GAAP earnings, the larger the improvement in forecast accuracy, increasing the confidence that it was the IFRS adoption that caused the improvement in the information environment.

Research Methodology

This research was an empirical comparative study between Canadian GAAP (2008-2010) and IFRS (2011-2012) periods, in order to understand the effect of IFRS adoption on the Canadian financial institutions that were listed on the Toronto Stock Exchange (TSX). Fielding and Fielding (1985, p. 34) stated that what was important was "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 required collecting, counting, and classifying data, and performing analyses on statistical findings. It required a process to include a method of deductive reasoning by the use of the measurement tools to collect the relevant data. In addition, it required only establishing associations among variables using effect statistics such as correlations. As such, the quantitative research method was selected for this research study. Bryman and Bell (2003) explained that the quantitative research method tested hypotheses and identified patterns in variables whereas the qualitative method validated corporate information and informed some of the methodological decisions. With its origins in the scientific empirical tradition, the quantitative approach relied on the numerical evidence to draw conclusions, to test hypotheses or theory, and was concerned with measurement, causality, generalization, and replication. Burns (2000) believed that the quantitative research method was infused with positivism and was based on a collection of quantifiable observations, which permitted deduction of the laws and the establishment of relationships. In addition, Creswell (2009) stated that if a problem called for the identification of factors that influenced an outcome, the utility of an intervention, or understanding clear outcomes, then a quantitative approach would be most suitable. Within a quantitative research method framework, a longitudinal survey method was adopted to collect five years of data from 2008 to 2012. According to Zenaida and Fernando (2000), longitudinal design was seldom used in social science research; however, it was typically used within financial investigations that had adopted positivist research philosophy. Buck et al. (2003) and McKnight and Tomkins (1999) believed that financial research was very typical for a positivist investigation.

This was supported by Main and Johnson (1993), who believed that companies' annual reports were a common resource tool when examining archival data. Accordingly, this study collected financial data of companies from highly credible SEDAR (the Canadian public companies financial reporting database). The sample consisted of the nine largest financial institutions selected randomly (to avoid selection bias, as it is the purest form of probability sampling) from the TSX/S&P index, which held majority market share in Canada. Yates (2008) believed that an unbiased random selection of individuals was important so that in the long run, the sample represented the population.

Surveys are generally believed to be useful when a researcher wants to collect data on phenomena that cannot be directly observed. It is a non-experimental, descriptive research method. As such, this research study used the survey method to collect data from 2008 to 2012. The use of the regression models was a technique utilized for the modeling and analysis of the numerical data consisting of values of a dependent variable (or response variable) and independent variables predictor or explanatory variable). Regression was a tool for determining causal relations between two or more variables. The regression coefficient gave the strength of this relation. When the regression was 1, the dependent variable was entirely explained by the independent variable. If the regression was 0, there was no relation whatsoever between the two variables. The regression equation showed how the dependent variable was explained by the independent variable. The strength of this relation was indicated by the regression coefficient or R^2 (Larsen & Marx, 2001). The F-test value indicated if there was evidence that the independent variable (in the case of the value relevance model these are the reported earnings, which will try to explain the market return) was linearly associated with the dependent variable (the market return in the value relevance attribute). The larger this F-statistic, the more useful the model. The critical value for the test depended on the sample size (i.e., the degree of freedom, and of course the arbitrary confidence interval). For this research, a confidence interval, or alpha, was chosen to be 5%, which is very typical in academic research.

Statistical Models

This research study attempted to understand the accounting quality with two approaches.

1) *Statement of Financial Position* (Balance Sheet) approach:

$\Delta NI/\Delta TA = \Delta NI/\Delta OCF + \Delta OCF\Delta Accruals + \Delta OCF/\Delta TA + \Delta NI/\Delta Accruals + \Delta EPS/\Delta MP + \Delta NI/\Delta BVPS$.

2) *Statement of Operations* (Income Statement or Profit/Loss) approach:

$\Delta NI = \Delta EPS + \Delta BVPS + \Delta MP + \Delta OCF + \Delta Accruals$.

Where:

NI=Net income; TA=Total Assets; OCF=Operating Cash Flow; EPS=Earnings per share; BVPS=Book value per share; MP=Market price.

Regression Model 1 (Statement of Financial Position approach):

$Y_1 = c + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + \epsilon$

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; ∈=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%.

ΔNI/ΔTA was a dependent variable in the statement of financial position approach. It represented an accounting quality. Δ in NI represented the equity component, and Δ in TA represented one component of the statement of a financial position and as such, the combination of these components represented added value for the statement of financial position. ΔNI/ΔOCF represented operating capabilities and predictability and ΔOCF/ΔAccruals was an independent variable and represented the ratios between the operating cash flows and accruals and had an indirect impact on the accounting quality in terms of cash and non-cash transactions. ΔOCF/ΔTA was an independent variable and represented liquidity and future earnings. ΔNI/ΔAccruals was a dependent variable and represented reporting aggressiveness and timeliness of loss recognition. ΔEPS/ΔMP was a dependent variable and represented the earnings value relevance (earnings sensitivity or usefulness to market price). ΔNI/ΔBVPS was a dependent variable and represented earnings sensitivity to book value per share.

Regression Model 2 (Statement of Operations Approach)

$Y_2=c+ B_1X_1+B_2 X_2+B_3X_3+B_4 X_4+B_5X_5+\in$

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; ∈=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%.

Δ in NI was a dependent variable and represented the macro effect or added value to equity component. Δ in EPS was an independent variable and represented earnings persistency and predictability through net income and shared outstanding, provided shares did not change materially to influence EPS. Δ in BVPS was an independent variable and represented the accounting value for the shareholders. Δ in MP was an independent variable and represented a fair value measurement of the firm. Δ in OCF was an independent variable and represented operating capabilities and future cash earnings. Δ in Accruals was an independent variable and represented reporting aggressiveness and income smoothing.

Research question:

Does IFRS adoption in the Canadian financial institutions improve financial reporting quality?

Hypotheses:

H_0: Financial reporting (accounting quality) has not improved after IFRS adoption in financial institutions in Canada.

H_1: Financial reporting (accounting quality) has improved after IFRS adoption in financial institutions in Canada.

Results

Correlations Analysis: Statement of Operations

Table 1: *Discussion on Correlation Results: Statement of Operations*

Pre-IFRS (Canadian GAAP) 2008-2010 vs IFRS (2011-2012)	
Δ EPS	Δ in EPS had changed from .301 under Canadian GAAP period to .781 under IFRS period, indicating that significant 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 higher persistency and predictability, perhaps due to the use of fair value accounting, under IFRS the period had created volatility. Therefore, these attributes had shown accounting quality had been increased under IFRS.
ΔBVPS	Δ in BVPS had changed from -.116 under Canadian GAAP period to .059 under IFRS period, indicating that under IFRS earnings had influenced the book value per share for shareholder value, therefore, the quality of accounting had been improved.
ΔMP	Δ in MP had changed from -.174 under Canadian GAAP period to -.750 under IFRS period, indicating that under IFRS, the market price movement is negative and more volatile or sensitive, therefore reported earnings were less useful under IFRS period.
ΔOCF	Δ in OCF had changed from -.834 under Canadian GAAP period to .993 under IFRS period, indicating that operating capability and future cash earnings had significantly increased under the IFRS accounting as such provides healthier cash predictability or financial cash outlook, and perhaps less manipulation of income by the management.
ΔAccruals	Δ in Accruals had changed from -.428 under Canadian GAAP period to -.997 under IFRS period, indicating that under IFRS, had significantly increased accruals (increased income smoothing, less timely loss recognition, and reduced certain accounting incentives) therefore increase in accounting quality.

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

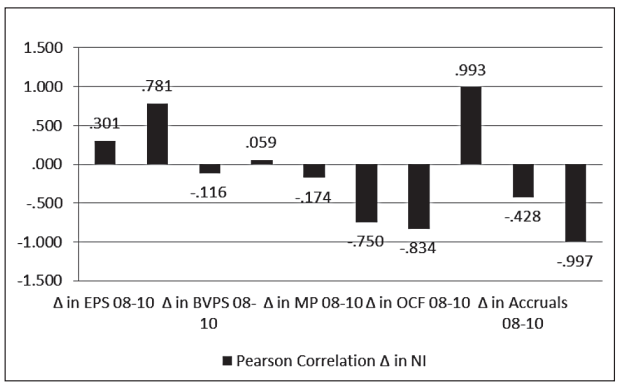


Table 2: *Discussion on Correlation Results: Statement of Financial Position*

Pre-IFRS (Canadian GAAP) 2008-2010 vs IFRS (2011-2012)	
ΔNI to ΔOCF	ΔNI to ΔOCF had changed from -.068 under Canadian GAAP period to .509 under IFRS period, indicating that under IFRS, cash earnings, operating capabilities, and predictability of earnings had increased as such, the earnings are characterized as higher quality.
ΔOCF to ΔAccruals	ΔOCF to ΔAccruals had changed from -.787 under Canadian GAAP period to .413 under IFRS period, indicating that correlations between them had increased, however, no direct effect on accounting quality.
ΔOCF to ΔTA	ΔOCF to ΔTA had changed from -.857 under Canadian GAAP period to .984 under IFRS period, indicating that significantly increased in this correlation was perhaps due to the fair market valuation of the assets.
ΔNI to ΔAccruals	ΔNI to ΔAccruals had changed from -.217 under Canadian GAAP period to .718 under IFRS period, indicating that significant reduction in reporting aggressiveness (more accruals) and increased timeliness of loss recognition, consistent with the earlier finding on Δ in Accruals under statement of operations approach. Therefore, significant reduction in reporting aggressiveness had increased the quality of accounting, perhaps indicated that the Canadian GAAP is less stringent towards managerial discretion than IFRS in financial institutions.
ΔEPS to ΔMP	ΔEPS to ΔMP had changed from -.501 under Canadian GAAP period to .550 under IFRS period, indicating that there was a significant 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, significant increase in value relevance under IFRS had improved the accounting quality.
ΔNI to ΔBVPS	ΔNI to ΔBVPS had changed from .804 under Canadian GAAP period to -.086 under IFRS period, indicating that the valuation usefulness of IFRS earnings to book value per share had decreased, therefore, accounting quality under IFRS had been declined.

Figure 2: *Comparison Pre-IFRS to (2008-2010) to IFRS (2011-2012): Statement of Financial Position Approach (Balance Sheet)*

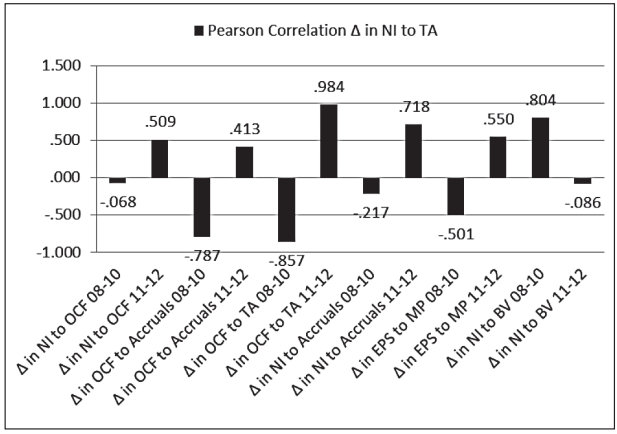


Table 3: *Correlations*

Statement of Operations Approach		Δ NI 08-10	Δ NI 11-12	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	1.000	1.000	.301	.781	-.116	.059	-.174	-.750	-.834	.993	-.428	-.997
	Δ in EPS			1.000	1.000	-.141	.000	-.297	-.327	-.267	.704	-.068	-.733
	Δ in BVPS					1.000	1.000	.637	-.134	.003	.066	.234	-.064
	Δ in MP							1.000	1.000	-.053	-.793	.128	.779
	Δ in OCF									1.000	1.000	0.573	-.999
	Accruals											1.000	1.000

Table 4: *Correlations*

Statement of Financial Position Approach		ΔNI to ΔTA 08-10	ΔNI to ΔTA 11-12	ΔNI to ΔOCF 08-10	ΔNI to ΔOCF 11-12	ΔOCF to ΔAccruals 08-10	ΔOCF to ΔAccruals 11-12	ΔOCF to ΔTA 08-10	to ΔTA 11-12	ΔNI to ΔAccruals 08-10	ΔNI to ΔAccruals 11-12	to ΔMP 08-10	to ΔMP 11-12	to ΔBV 08-10	to ΔBV 11-12
Pearson Correlation	ΔNI to ΔTA	1.000	1.000	-.068	.509	-.787	.413	-.857	.984	-.217	.718	-.501	.550	.804	-.086
	ΔNI to ΔOCF			1.000	1.000	-.325	.003	-.092	.431	-.473	.309	-.214	.270	-.254	.434
	ΔOCF to ΔAccruals					1.000	1.000	.855	.411	.372	.587	.641	.095	-.505	-.142
	ΔOCF to ΔTA							1.000	1.000	.034	.736	.805	.490	-.529	-.096
	ΔNI to ΔAccruals									1.000	1.000	-.234	.385	-.274	-.204
	ΔEPS to ΔMP											1.000	1.000	-.156	-.480
	ΔNI to ΔBV													1.000	1.000

Table 5: *Model Summary (Operations)*

Model Summary[b] 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	.868[a]	.754	.695	.29508	.754	12.877	5	21	.000	1.716
Model Summary[b] 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]	1.000	1.000	10.69599	1.000	51085.549	5	12	.000	2.843
a. Predictors: (Constant), Δ in Accruals, Δ in BVPS, Δ in MP, Δ in OCF, Δ in EPS										
b. Dependent Variable: Δ in NI										

Table 6: *Model Summary (Financial Position)*

Model Summary[b] Canadian (2008-2010): Statement of Financial Position 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	.959[a]	.921	.895	.16857	.921	36.687	6	19	.000	1.584
Model Summary[b] IFRS (2011-2012): Statement of Financial Position 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	.993[a]	.985	.977	16.17110	.985	121.633	6	11	.000	1.962
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										

Table 7: *Statement of Operations Approach*

ANOVA [a]Canadian GAAP (2008-2010): Statement of Operations Approach						ANOVA [a]IFRS (2011-2012): Statement of Operations Approach					
	Sum of Squares	df	Mean Square	F	Sig.		Sum of Squares	df	Mean Square	F	Sig.
Regression	5.606	5	1.121	12.877	.000[b]	Regression	29221995.448	5	5844399.090	51085.549	.000[b]
Residual	1.829	21	.087			Residual	1372.850	12	114.404		
Total	7.435	26				Total	29223368.298	17			
ANOVAa Canadian GAAP (2008-2010): Statement of Financial Position Approach						ANOVAa IFRS (2011-2012): Statement of Financial Position Approach					
	Sum of Squares	df	Mean Square	F	Sig.		Sum of Squares	df	Mean Square	F	Sig.
Regression	6.255	6	1.043	36.687	.000[b]	Regression	190845.394	6	31807.566	121.633	.000[b]
Residual	.540	19	.028			Residual	2876.548	11	261.504		
Total	6.795	25				Total	193721.942	17			
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											

Regression Coefficients:

1) *Statement of Operations Approach*

Canadian GAAP: $Y_{2008\text{-}2010}$=.306-003X_1+.044X_2-.454X_3-.032X_4 +.014X_5 (Table 8)

IFRS: $Y_{2011\text{-}2012}$=-2.062+6.552X_1-.005X_2+2.1863X_3-.073X_4-3.563X_5 (Table 8)

2) *Statement of Financial Position Approach*

Canadian GAAP: $Y_{2008\text{-}2010}$=.071-.007X_1-.032X_2-.024X_3-.002X_4+1.739X_5-.028X_6 (Table 8)

IFRS: $Y_{2011\text{-}2012}$=-1.030+5.241X_1+4.932X_2+2.043X_3-3.535X_4+12.273X_5-.001X_6 (Table 8)

Pertaining to the regression coefficients under the statement of operations approach for the IFRS period in the Table 8, it was found that B_1 and B_3 were higher relative to the Canadian GAAP which indicated that these betas were significant in the regression, providing much clearer evidence that positive and negative shocks were transitory for the IFRS firms. However, it was found that B_2, B_4, and B_5 were lower relative to the Canadian GAAP. That is, under IFRS, B_2 and B_4 indicated that these betas had similar

transitory shocks relative to Canadian GAAP. However, they were non-significant to the IFRS regression model. On the other hand, B_5 had a large negative shock and had impacted the IFRS regression model. According to Brauer and Westermann (2010), the negative coefficient on the betas would imply a smooth (non-oscillating) impulse-response pattern. The larger the B, the faster the reversion to the mean. B_1 (ΔEPS) and B_3 (ΔMP) are > 0 indicating significant influence to the predictability and value relevance. Similarly, B_2 (ΔBVPS) was < 0, however, it was positively non-significant to the IFRS regression model. B_4 (ΔOCF) was < 0, which indicated the weak negative influence of positive cash flows to the IFRS regression model. Similarly, B_5 (ΔAccruals) was < 0 however, it was negatively significant to the IFRS regression model, which indicated that negative losses had been recognized more timely than gains. In the statement of a financial position approach for the IFRS period in Table 8, B_1, B_2, B_3 and B_5 were higher relative to the Canadian GAAP, which indicated that these betas were positively influenced by the IFRS regression model. However, B_4 and B_6 were lower relative to the Canadian GAAP, which indicated that these betas had weakly influenced the IFRS regression. In the IFRS regression, B_1 (ΔNI to ΔOCF), B_2 (ΔOCF to ΔAccruals), B_3 (ΔOCF to ΔTA), and B_5 (ΔEPS to ΔMP) were > 0 which indicated a significant positive influence of these respective betas concerning cash forecasting, predictability of future earnings, value relevance, and accruals, to the IFRS regression model. B_4 (ΔNI to ΔAccruals) < 0, however, it was significant, which indicated that in the long run, the persistence of negative shocks would influence the IFRS regression model. B_5 (ΔNI to ΔBVPS) = 0 indicated that the valuation usefulness of earnings to book value per share would be persistent. The F-tests results (large numbers characterized statistical model's usefulness) as were provided in Tables 5 and 6, showed that the IFRS models were relatively more useful in both statements of operations and statements of financial position approaches. That is, the Canadian regression models had a relatively weaker relationship between independent and dependent variables, relative to IFRS regression models, yet both types of regression models were statistically valid to draw conclusions on the accounting quality between the Canadian GAAP and IFRS.

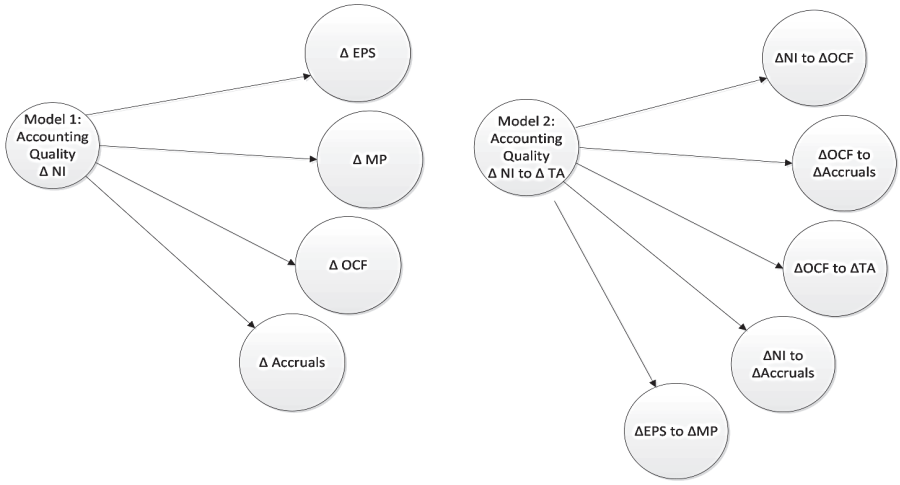
Table 8: *Statement of Operations (Coefficients)*

Coefficients: Statement of Operations Approach: Canadian GAAP (2008 - 2010)						Coefficients: 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)	.306	.109		2.799	.011	(Constant)	-2.062	2.989		-.690	.503
Δ in EPS	-.003	.037	-.010	-.079	.938	Δ in EPS	6.552	.580	.105	11.287	.000
Δ in BVPS	.044	.362	.017	.121	.905	Δ in BVPS	.005	.027	.000	.174	.865
Δ in MP	-.454	.265	-.254	-1.712	.102	Δ in MP	2.186	2.358	.004	.927	.372
Δ in OCF	-.032	.005	-.923	-6.476	.000	Δ in OCF	-.073	.746	-.013	-.098	.923
Δ in Accruals	.014	.015	.129	.921	.368	Δ in Accruals	-3.563	.544	-.937	-6.544	.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)	.071	.059		1.217	.239	(Constant)	-1.030	5.770		-.179	.862
ΔNI to ΔOCF	-.007	.018	-.038	-.376	.711	ΔNI to ΔOCF	5.241	2.420	.121	2.166	.053
ΔOCF to ΔAccruals	-.032	.054	-.101	-.584	.566	ΔOCF to ΔAccruals	4.932	3.558	.066	1.386	.193
ΔOCF to ΔTA	-.024	.007	-.733	-3.618	.002	ΔOCF to ΔTA	2.043	.136	.908	15.017	.000
ΔNI to ΔAccruals	-.002	.012	-.021	-.180	.859	ΔNI to ΔAccruals	-3.535	3.685	-.061	-.959	.358
ΔEPS to ΔMP	1.739	1.310	.200	1.328	.200	ΔEPS to ΔMP	12.273	8.180	.083	1.500	.162
ΔNI to ΔBVPS	.028	.007	.381	3.739	.001	ΔNI to ΔBVPS	-.001	.005	-.015	-.250	.807
a. Dependent Variable: ΔNI to ΔTA											

Table 5, under the Canadian GAAP period, had shown average R^2 for the timeliness of 75.4% and under IFRS GAAP period, had shown average R^2 for the timeliness of 100%. Table 6, under the Canadian GAAP period, had shown average R^2 for the timeliness of 89.5%; and under the IFRS period, had shown average R^2 for the timeliness of 97.7%. All of these R^2, especially under IFRS period, indicated 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 future earnings. Francis et al. (2005) found an average R^2 for the timeliness of 21.9% for the sample consisting of a large number of US firms from 1975-2001.

Following Figure 3 are the derived statistical models for the accounting quality that resulted from the correlation results. That is, the accounting quality could 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



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 the knowledge on this important topic, this research investigated whether mandatory IFRS adoption in the Canadian financial institutions improved firms' accounting quality. This research found that earnings quality increased due to an increase in value relevance (earnings influence to market price), an increase in persistency and predictability in earnings and cash flows, increased influence of earnings to shareholder value, and an increase in accruals and timeliness loss of recognition (reduce in income smoothing). However, it also found that the valuation usefulness of earnings to book value per share (accounting valuation) was reduced. Table 9 summarizes the results.

Table 9: *Summary of Accounting Quality Regression Results Under IFRS Relative to Canadian GAAP*

Statement of Operations Approach		Statement of Financial Position Approach	
Δ EPS	Higher persistency and predictability in earnings; higher accounting quality under IFRS.	ΔNI to ΔOCF	Increase in operating capability and predictability; increase in quality of reporting under IFRS.
ΔBVPS	Increase in earnings influence to shareholders value; higher accounting quality under IFRS.	ΔNI to ΔBVPS	Decrease in valuation usefulness of earnings to BVPS; lower accounting quality under IFRS.
ΔMP	Earnings provide higher volatility to market price; higher accounting quality under IFRS.	ΔEPS to ΔMP	Increase in value relevance (earnings influence to market price); increased accounting quality under IFRS.
ΔOCF	Better predictability in cash flow and financial forecasting; higher accounting quality under IFRS.	ΔOCF to ΔTA	Increase in fair market valuation; higher accounting quality under IFRS.
ΔAccruals	Increase in accruals; higher accounting quality under IFRS.	ΔNI to ΔAccruals	Increase in accruals and timeliness loss of recognition; higher accounting quality under IFRS.
		ΔOCF to ΔAccruals	Increase in correlation; no direct effect on accounting quality under IFRS.

The quality of the accounting information is very often determined by the quality of the reported earnings. For this matter, researchers made the quality of accounting information empirically operationalized by developing several attributes in order to determine the earnings quality. Because earnings can be decomposed into cash flows and accruals, several researchers used accruals quality to draw conclusions about the earnings quality (Francis et al., 2005). On the other hand, some other scholars interpreted the quality of earnings when earnings were persistent with the predictive ability of the earnings. In their view, earnings were of high quality when a firm's past earnings were strongly associated with its future earnings. Other researchers viewed earnings to be of higher quality when they were value relevant (i.e., the earnings are strongly associated with the security's price). This research found that the results were consistent with both information and comparability effects between the two approaches of the statement of operations and the statement of financial position, as illustrated in Table 9. Overall, this research concluded that after the adoption of the IFRS, accounting quality had a positive influence on the financial reporting of the Canadian financial institutions.

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