THE EFFECT OF IFRS ON COMPETITION AMONG INDUSTRY PEERS

By

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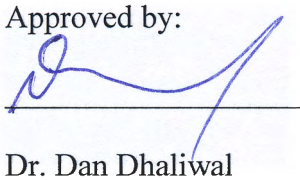

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THE EFFECT OF IFRS ON COMPETITION AMONG INDUSTRY PEERS

ABSTRACT

This study examines the relationship between International Financial Reporting Standards (IFRS) and competition among industry peers. Proponents of IFRS contend that uniform accounting standards increase financial statement comparability, and prior research has indicated increased cross-border investments following mandatory adoption in the European Union. The underlying implications of increased financial statement comparability are that firms will be compared to a larger number of firms within their industry and have greater incentive to attract investors due to the higher level of foreign investments. I hypothesize that industry competition increased in the European Union following mandatory IFRS adoption as a result of these effects. I initially find that competition decreased following the implementation of IFRS. However, when the uniformity of accounting standards within industries is considered, I find an increase in industry competition following the implementation of IFRS.

Keywords: International Financial Reporting Standards, industry competition, uniformity

I. INTRODUCTION

Increased globalization in capital markets has led to a widespread ideal for a common set of financial reporting standards. More than 120 countries have implemented International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) to address the need for increased financial comparability of firms across countries. On January 1, 2005 one of the most significant changes in financial reporting history occurred as the European Union mandated the adoption of IFRS. Following this change, the European Union has presented a unique setting for examining the effects of IFRS as approximately 7,000 firms simultaneously shifted from using domestic accounting standards to a set of uniform reporting standards. In this paper I examine the effect of the mandatory adoption of IFRS in the European Union on market competition among industry peers.

Much of the prior literature related to IFRS has centered on the benefits of international accounting standards. The main benefit suggested by proponents of IFRS is increased financial comparability which makes cross-country comparisons of firms less costly to investors. An overall positive reaction to the adoption of IFRS has been found in prior literature. Armstrong et al. (2007) examined European stock market reactions to 16 events associated with the adoption of IFRS in the European Union found a positive reaction to the adoption events. These results are consistent with investors expecting net benefits associated with IFRS adoption. DeFond et al. (2010) show an increase in foreign mutual fund ownership associated with IFRS adoption thus supporting the argument that IFRS benefits investors by increasing financial comparability.

Another stream of literature assesses the quality of IFRS as a set of financial standards in comparison to domestic standards. Jeanjean and Stolowy (2008) analyze earnings management before and after IFRS adoption in Australia, France, and the UK. This paper addressed whether IFRS is a better set of accounting standards than the previously applied domestic standards in three adopting countries. Results from the study showed that earnings management did not change significantly in Australia or the UK and actually increased in the France. Jeanjean and Stolowy (2008) conclude, "Sharing rules is not a sufficient condition to create a common business language, and management incentives and national institutional factors play an important role in framing financial reporting characteristics."

While Jeanjean and Stolowy (2008) concentrated on financial reporting quality, they made considerable assumptions about comparability and more specifically about competition. Their logic follows that increased financial comparability across different countries enhances the effectiveness of competition for international funds. This leads to a lower cost of capital for firms and reduces the cost to investors of making comparisons. Because comparisons are easier for investors, there is more pressure on managers to increase earnings management. This logic assumes that competition among industry peers increases with the adoption of IFRS however this phenomenon has not been examined in accounting literature to date.

My paper seeks to address a gap in existing IFRS literature by investigating whether competition among industry peers increased following mandatory adoption of IFRS in European Union. This study makes important contributions to the conversation surrounding IFRS adoption. First, this research addresses the gap in existing literature by investigating the underlying assumption that increased financial statement comparability has led to increased competition. Furthermore, economic evidence of an increase in industry competition as a result of IFRS implementation should be of interest to countries considering IFRS adoption. Convergence efforts in the United States began in 2002 with the signing of the Norwalk Agreement

formalizing the FASB's commitment to a convergence of U.S. GAAP and IFRS. As the U.S. continues to define the nature of its convergence and possible adoption of IFRS, it will be important for policy makers to take into consideration the associated economic effects associate with industry competition.

II. BACKGROUND

IFRS and Comparability

A number of studies investigate whether financial statement comparability of companies across countries improved following the adoption of IFRS. Horton et al. (2012) examines the effect of mandatory IFRS adoption on the information environment. The paper shows that forecast accuracy increased and thus improved the information environment post-IFRS adoption. This implies an increase in comparability due to higher information quality. Additional evidence from Wu and Zhang (2011) finds that following the adoption of IFRS there was an increase in the use of Relative Performance Evaluations based on foreign peers' accounting information. Comparison of CEOs at firms across countries became easier as a result of the implementation of IFRS. Furthermore, the study found stronger results for firms in more competitive industries. Therefore, the results show not only that comparability increases with IFRS adoption but also that there may be a link between the increased comparability associated with IFRS and competition among industry peers. Brochet et al. (2011) examines whether mandatory adoption of IFRS leads to capital market benefits through enhanced financial statement comparability. They found a decrease in abnormal returns to insider purchases concluding that IFRS reduced private information by enhancing the comparability of financial statements.

Prior to the mandatory adoption of IFRS in the European Union, the high costs associated with comparing financial information across countries presented an obstacle to foreign investors. Studies by Chan et al. (2005) and Kang and Stulz (1997) provide evidence of high costs of acquiring and processing the financial information of foreign firms as a key factor that explans the reluctance of investors to make investments in foreign companies. Corvig et al. (2007) investigated the relationship of this home bias to the voluntary adoption of International Accounting Standards. The findings of this study suggest that IAS adoption reduced the home bias of foreign investors as foreign mutual fund ownership was higher among firms using IAS in comparison to firms using domestic accounting standards.

Comparability and Foreign Investments

Prior research shows an increase in foreign investments following the adoption of IFRS. Bruggemeann et al. (2009) found an increase in cross-border equity investments by individual investors. Research also shows an increase in foreign institutional holdings post-IFRS (Florou and Pope, 2009). DeFond et al. (2010) shows that the adoption of IFRS increased comparability and led to increased foreign mutual fund ownership. The paper describes that for such an increase to occur there had to be a credible increase in uniformity. A credible increase in uniformity is defined specifically as a large increase in the number of industry peers using the same accounting standards in countries where IFRS is credibly implemented. DeFond et al. also found that subsequent to mandatory IFRS adoption, the increase in foreign mutual fund

investment is greater among firms that experience relatively large increases in uniformity and firms that are in countries with strong implementation credibility. The increase in comparability resulting from IFRS adoption increases foreign mutual fund ownership and again implies a connection to industry competition.

Competition and Financial Reporting

Research also suggests a link between market competition and financial reporting. Harris (1998) examined the relation between the degree of competition in an industry and managers' segment reporting decisions. She found that managers in less competitive industries are less likely to report operations as industry segments. Dhaliwal et al. (2008) investigates the link between intense product market competition and accounting conservatism. Measuring accounting conservatism with timely loss recognition and the intensity of product market competition with the Herfindahl index, the study finds product market competition is positively related with accounting conservatism in the form of asymmetric timeliness in the recognition of economic loss. While Harris (1998) and Dhaliwal et al. (2008) investigated the effect of competition on financial reporting, my paper will continue to research this relationship by examining whether financial reporting standards have an effect on competition.

III. HYPOTHESIS DEVELOPMENT

Increased financial comparability has been proposed as a key benefit of IFRS as it decreases the costs of comparisons enabling foreign investors to more easily identify the most profitable firms in an industry across countries. Prior literature has confirmed this theory by investigating foreign investments and showing an increase in the flow of funds across countries following the adoption of IFRS. This theory has several implications for market competition post-IFRS adoption. First, competition can be expected to increase because individual firms are now being compared to a greater number of firms thus giving managers an increased incentive for profitability. Similarly, a higher level of foreign investments post-IFRS creates a greater incentive to attract investors. Firms that are able to obtain foreign investments will be able to grow and continue to become more competitive within their industry. Thus, I predict that competition among industry peers in the European Union has increased following the mandatory adoption of IFRS.

I consider IFRS to be the most likely cause of an increase in competition in Europe, however, there are alternative explanations to be regarded. The European Economic Community aims to assist economic growth throughout Europe, and increased competition could be the result of other EEC policies. Alternatively, Louis and Urcan (2012) found evidence of a significant increase in cross-border acquisitions in countries adopting IFRS. Consequently, mergers and acquisitions may cause competition to decrease post-IFRS due to a fewer number of firms in an industry. Finally, although the vast majority of research supports an increase in financial comparability following the adoption of IFRS, there are opponents who argue that comparability did not improve. Lang, Maffett, and Owens (2010) found that while IFRS adoption increased cross-country earnings comovement, it did not increase accounting comparability relative to a control sample of non-adopting firms.

Given the competing empirical evidence on changes in financial reporting comparability, other EEC policies affecting economic growth in the European Union, and merger and acquisition activity following the implementation of IFRS, I test the following null hypothesis.

Hypothesis: IFRS implementation in the European Union did not affect market competition among industry peers.

IV. RESEARCH DESIGN

Data and Sample

Financial and industry data was obtained from Compustat Global and returns data from CRSP. The initial sample comprises all firms headquartered in France, Germany, and England between 1999 and 2012. These counties represent three countries in the European Union in which the use of IFRS became mandatory in 2005. This yielded an initial sample of 39,873 observations. From this sample 19,956 observations of financial and utility firms and firms with missing financial and industry data were removed. 7,880 observations for which currency translation data was missing were also removed. Table 1 provides a summary of how I arrived at the final sample of 12,037 observations.

TABLE 1
Sample Selection

Firms headquartered in France, Germany or Great Britain	39,873
Less: Financial and utility firms and firms with missing financial and industry data	(19,956)
Subtotal	19,917
Less: Firms with missing currency translation data	(7,880)
Final sample size	12,037

Table 2 presents frequency distributions of the final sample. Panel A separates the sample by accounting period with 4,779 observations from years prior to the implementation of IFRS and 7,248 observations from subsequent years. Panel B displays the number of observations per year. The sample contains observations from 1999 to 2012 with the number of observations per year ranging from 1 to 1,242. Panel C provides a breakdown of the sample by industry according to 2-Digit SIC codes. The industries with the highest number of observations include manufacturing at 48% and services at 25% of the total sample. Additional industries represented in the sample include mining, construction, transportation communications and utilities, wholesale trade, and retail trade with 6% of the sample from other industries.

TABLE 2
Frequency Distribution of Observations

Panel A: Frequency Distribution by IFRS Period

POST_IFRS	Number of Observations	Percentage of Observations
0	4779	40%
1	7258	60%
Total	12037	100%

Panel B: Frequency Distribution by Year

Year	Number of Observations	Percentage of Observations
1999	497	4%
2001	1133	9%
2002	1106	9%
2003	1042	9%
2004	999	8%
2005	1165	10%
2006	1	0%
2007	1242	10%
2008	1219	10%
2009	1198	10%
2010	1161	10%
2011	1084	9%
2012	190	2%
Total	12037	100%

Panel C: Frequency Distribution by 2-Digit SIC Codes

2-Digit SIC Code	Industry Description	Number of Observations	Percentage of Observations
10-14	Mining	330	3%
15-17	Construction	362	3%
20-39	Manufacturing	5743	48%
41-49	Transportation, Communications and Utilities	686	6%
50-51	Wholesale Trade	495	4%
52-59	Retail Trade	587	5%
60-67	Financial, Insurance and Real Estate	0	0%
70-79	Service	3067	25%
80+	Other	767	6%
Total		12037	100%

Model

Following prior literature by Harris (1998) and Dhaliwal et al. (2008), I measure competition using HH, the Herfindahl index, defining competition as the sum of squared market shares. Values of the Herfindahl index range from 0 to 1 with lower values implying that market share is concentrated among fewer firms in an industry and higher values implying that there are many firms in an industry competing for market share. Therefore lower values of HH represent more intense market competition while higher values reflect less competition in an industry. I also use POST_IFRS as an indicator variable that equals 1 if the observation year-end is equal to or later than December 31, 2005 and 0 otherwise. The following regression model was used to test the relation between accounting standards and industry competition:

$$HH = \beta_0 + \beta_1 POST\_IFRS + \Sigma\beta_2 CONTROLS$$

I also control for the effects of other factors influencing competition among industry peers defined as follows:

ROA = earnings before extraordinary items and discontinued operations / total assets
LEV = total liabilities / total assets
BTM = book equity / market equity
LSIZE = the natural logarithm of firm total assets

To further test my hypothesis, I use a second model to consider the uniformity of accounting standards within an industry. This model introduces an interaction variable POST_IFRS x UNIFORMITY to measure the change in the number of industry peers using the same accounting standards following the adoption of IFRS. I expect competition to increase when there is an increase in the uniformity of accounting standards within an industry.

$$HH = \beta_0 + \beta_1 POST\_IFRS \times UNIFORMITY + \Sigma\beta_2 CONTROLS$$

UNIFORMITY = the number of firms using IFRS standards in an industry that a firm can be compared to after IFRS implementation less the average number of firms using domestic standards in an industry that a firm can be compared to prior to IFRS implementation

V. RESULTS

Descriptive Statistics

Table 3 presents descriptive statistics for the variables used in the regression model. The mean value of HH for the total sample is .396 with values ranging from .062 to 1. Mean values for ROA, LEV, BTM, and LSIZE were -0.015, 0.188, 1.028, and 5.399 respectively.

TABLE 3
Descriptive Statistics

Variable	N	Minimum	Median	Mean	Maximum	Std Dev
HH	12037	0.062206	0.33575	0.396226	1	0.2752726
ROA	12037	-1.627228	0.029787	-0.015266	0.3267754	0.1911208
LEV	12037	0	0.167711	0.188194	0.6780397	0.1587207
BTM	12037	0.010938	0.665579	1.028226	172.102212	3.9297823
LSIZE	12037	0.939639	5.069565	5.399038	12.2779411	2.1483253

Multivariate Results

Table 4 summarizes the results of the regression of competition on IFRS implementation. The results reveal that POST_IFRS forms a statistically significant positive correlation with HH indicating that competition decreased following the implementation of IFRS. Therefore, the results of the regression are consistent with the null hypothesis that the adoption of IFRS did not increase competition among industry peers.

TABLE 4
Regression of Competition on IFRS Implementation

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	0.8447257	0.02000462	42.23	<.0001
POST_IFRS	0.2792183	0.01752409	15.93	<.0001
ROA	-0.006119	0.00911224	-0.67	0.5019
LEV	-0.0406289	0.01823418	-2.23	0.0259
BTM	0.000363	0.00033209	1.09	0.2743
LSIZE	0.0031008	0.00427879	0.72	0.4687

Multivariate Results with Uniformity

Increased financial statement comparability following IFRS adoption was expected to lead to increased competition among industry peers, however, my initial results indicate a decrease in competition post-IFRS implementation. A possible explanation for the results is the increase in cross-border acquisitions in countries adopting IFRS as found in prior research by Louis and Urcan (2012). This evidence suggests that because of increased mergers and acquisitions there are less firms competing for market share within an industry following the implementation of IFRS. Therefore competition could have decreased after the adoption of IFRS simply because there are fewer firms competing in each industry.

In considering the effect of mergers and acquisitions on the results of the initial regression, a second regression analysis introduced an interaction variable POST_IFRS x

UNIFORMITY where UNIFORMITY is defined as the number of firms using IFRS in an industry following IFRS adoption less the average number of firms using domestic standards in an industry prior to IFRS implementation.

Table 5 presents the results of the regression of competition on IFRS implementation and accounting standard uniformity. The results show a statistically significant negative correlation between POST_IFRS x UNIFORMITY and HH indicating that competition increased following the implementation of IFRS with greater accounting standard uniformity within an industry.

TABLE 5
Regression of Competition on IFRS Implementation and Accounting Standard Uniformity

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1.177492	0.02843467	41.41	<.0001
POST_IFRS	-0.176194	0.01682766	-10.47	<.0001
POST_IFRS x Uniformity	-0.000912	0.00007706	-11.84	<.0001
ROA	0.009135	0.01266865	0.72	0.4709
LEV	-0.022608	0.02137503	-1.06	0.2902
BTM	0.000752	0.00033265	2.26	0.0239
LSIZE	0.007453	0.00521298	1.43	0.1528

VI. CONCLUSION

The mandatory adoption of IFRS in the European Union presents an opportunity to study the relationship between accounting standards and industry competition. This paper presents evidence on the relationship between the implementation of IFRS and competition among industry peers. The study addresses a gap in the prior research and contributes to the existing accounting literature related to IFRS.

Based on prior literature indicating increased financial statement comparability and increased foreign investments, I assumed that following IFRS implementation, firms would both be compared to a larger number of firms in their industry and have a greater incentive to attract investors due to a higher level of foreign investments. Therefore, I expected to find an increase in competition following the mandatory adoption of IFRS in the European Union, but due to increased mergers and acquisitions following IFRS adoption, I tested a null hypothesis of no change in competition.

I initially find that contrary to my expectations, industry competition decreased following the adoption of IFRS. However, when the uniformity of accounting standards within industry is considered, the results are consistent with the theory that industry competition increased following the implementation of IFRS. Future research can continue to investigate the effect of IFRS on competition among industry peers.

REFERENCES

Armstrong, Christopher S., et al. "Market reaction to the adoption of IFRS in Europe." The Accounting Review 85.1 (2010): 31-61.

Brochet, Francois, and Alan D. Jagolinzer. 2012. "Mandatory IFRS adoption and financial statement comparability." Contemporary Accounting Research, forthcoming.

Brüggemann, Ulf, et al. "How do individual investors react to global IFRS adoption?." AAA, 2010.

Chan, Kalok, Vicentiu Covrig, and Lilian Ng. "What determines the domestic bias and foreign bias? Evidence from mutual fund equity allocations worldwide." The Journal of Finance 60.3 (2005): 1495-1534.

Covrig, Vicentiu M., Mark L. Defond, and Mingyi Hung. "Home bias, foreign mutual fund holdings, and the voluntary adoption of international accounting standards." Journal of Accounting Research 45.1 (2006): 41-70.

DeFond, Mark, et al. "The impact of mandatory IFRS adoption on foreign mutual fund ownership: The role of comparability." Journal of Accounting and Economics 51.3 (2011): 240-258.

Dhaliwal, Dan S., et al. "Product market competition and accounting conservatism." Available at SSRN 1266754 (2008).

Florou, Annita, and Peter Pope. "Mandatory IFRS adoption and investor asset allocation decisions." Available at SSRN 1362564 (2012).

Harris, Mary Stanford. "The association between competition and managers' business segment reporting decisions." Journal of Accounting Research 36.1 (1998): 111-128.

Horton, Joanne, George Serafeim, and Ioanna Serafeim. "Does Mandatory IFRS Adoption Improve the Information Environment?*." Contemporary Accounting Research 30.1 (2013): 388-423.

Jeanjean, Thomas, and Hervé Stolowy. "Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption." Journal of accounting and public policy 27.6 (2008): 480-494.

Kang, Jun-Koo, and René Stulz. "Why is there a home bias? An analysis of foreign portfolio equity ownership in Japan." Journal of Financial Economics 46.1 (1997): 3-28.

Lang, M., M. Maffett, and E. Owens. "Earnings comovement and accounting comparability: The effects of mandatory IFRS adoption." Unpublished working paper (2010).

Louis, Henock, and Oktay Urcan. "The Effect of IFRS on Cross-Border Acquisitions." Available at SSRN 2164995 (2012).

Wu, Joanna Shuang, and Ivy Zhang. "Accounting integration and comparability: Evidence from relative performance evaluation around IFRS adoption." Simon School Working Paper No (2010).