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Hang Minh Pham
University of Arkansas, Fayetteville

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ACCOUNTING CONSERVATISM IN INTERNATIONAL FINANCIAL REPORTING STANDARDS AND U.S. GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

By Hang Minh Pham

Department of Accounting

Faculty Mentors: Carole Shook and James Myers

Department of Accounting

Abstract

During the past five years, the number of U.S. citizens who own foreign securities has increased by thirty percent. This trend has led to the need for a uniform accounting system that would increase the comparability and consistency of financial statements across countries in the world. Today, over 100 countries have adopted International Financial Reporting Standards (IFRS) as their primary accounting system. The European Union required the use of IFRS in 2005. In the U.S., the Securities and Exchange Commission is considering the adoption of IFRS in 2014.

IFRS and U.S. Generally Accepted Accounting Principles (GAAP) are different in many ways. U.S. GAAP is more detailed, with strict rules and guidelines to follow. In contrast, IFRS allows more room for accountants to make judgments in preparing financial statements and auditing them. This has led to the assumption that IFRS would open the door to earnings management and decrease the conservatism of financial statements. Conservatism is "the accountant's tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses" (Basu, 1997). Conservatism helps prevent managers from manipulating income and earnings per share (EPS). While there are many studies on accounting conservatism in U.S. GAAP, few or no studies have been done to determine the impact of conservatism in IFRS. This study was conducted to determine whether IFRS is more conservative than U.S. GAAP by comparing the book-to-market value (BTM) between IFRS firms and U.S. GAAP firms. Lower BTM values are associated with greater firm conservatism.

1. Introduction

During the past few years, the number of U.S. citizens investing funds in foreign companies has increased dramatically. According to the Securities and Exchange Commission (SEC), two-thirds of U.S. investors own foreign securities, a thirty percent increase in the past five years. This rising trend of investing in foreign companies has created the need for a uniform accounting system that would increase the comparability and consistency of financial statements across countries. Today, over 100 countries have adopted International Financial Reporting Standards (IFRS) as their primary accounting system. In Europe, the European Union (EU) has required "companies incorporated in one of its Member States and whose securities are listed on an EU regulated market

to use IFRS beginning with their 2005 financial year" (SEC Release 33-879).

On February 18, 2000, the SEC issued a Concept Release "seeking input on convergence to a high quality global financial reporting framework while upholding the quality of financial reporting domestically" (SEC Releases 33-7801). On September 18, 2002, the SEC formally committed to the convergence of U.S. GAAP and IFRS in the Norwalk Agreement. Almost five years later, on July 3, 2007, the SEC issued for public comment a proposal that would allow foreign issuers to file financial statements according to IFRS standards without having to reconcile these statements to U.S. GAAP (SEC Release 2007-128).

On November 15, 2007, the SEC enacted a rule amendment that eliminated the convergence from IFRS to U.S. GAAP for all foreign issuers, with an implementation date of May 4, 2008 (SEC Releases 33-8879). This rule helps promote investments in non-U.S. companies, because foreign companies would no longer need to spend money converting their financial statements from IFRS to U.S. GAAP. The SEC also believes that this rule would "help American investors better analyze and get more readily comparable financial information from the U.S.-registered foreign companies in which they invest." In fact, former SEC Chairman Christopher Cox states that, "Consistent application of international accounting standards will help the two-thirds of U.S. investors who own foreign securities to understand and draw better comparisons among investment options than they could with a multiplicity of national accounting standards" (Press Release 2007-235). In his statement on October 24, 2007, Robert Herz, Chairman of the Financial Accounting Standards Board (FASB), suggested that the U.S. should set specific timelines to accommodate any changes necessary to support a move to IFRS, including training to potential users of financial statements.

On August 27, 2008, the SEC proposed a "Roadmap" that could lead to the adoption of IFRS in the U.S. in 2014 (SEC Releases 2008-184). The SEC would decide in 2011 whether adopting IFRS would be beneficial to investors and the public interest. Currently, there are opposing opinions regarding the adoption of IFRS. For example, in a 2009 survey by Deloitte & Touche LLP, one of the "Big Four" public accounting firms, 75% of the respondents favored a movement toward a uniform global accounting standard, such as IFRS. Paul Volker, former chairman of the International Accounting Standards

Committee Foundation and current chairman of President Obama's Economic Recovery Advisory Board, states that "I do think we ought to be working toward international accounting standards and have them become the standard around the world under the general aegis of the International Accounting Standards Board (IASB), and there's been a lot of progress in that direction." Others, such as SEC Chairman Mary Schapiro, are more skeptical about the movement of IFRS adoption in the U.S. Specifically, Schapiro is concerned about "the pace of the timeline, the independence of IASB, the quality of the standards themselves, and the cost companies must incur in making the conversion" (CFO). The SEC estimates that each firm would have to invest \$32 million in adoption of IFRS, which might be a major barrier to smaller firms.

The possible convergence of U.S. GAAP to IFRS in future years would have a major impact on the accounting profession. Many questions have not yet been addressed about the implications of this convergence. Currently, there has been little or no research on the differences between conservatism in U.S. GAAP and conservatism in IFRS. Conservatism is an important topic in accounting. It involves the need for higher verification to recognize gains than to recognize losses. In ambiguous circumstances, conservatism will understate net income (Basu, 1997). This means that investors will be given information where they are receiving the most conservative number for net income, which hopefully leads to better investment decisions than if they are provided an overstated net income number.

This topic of conservatism in IFRS compared to conservatism in U.S. GAAP is addressed in this paper. BTM value (book value of equity divided by market value of equity) is one of the most important factors in determining conservatism. This paper compares BTM values between IFRS firms and U.S. GAAP firms to determine which accounting system is more conservative. Other factors, such as total assets and the skewness of total assets, are also controlled in the analysis. Before framing the research questions of this study, additional background information is provided.

2. Major differences between IFRS and U.S. GAAP

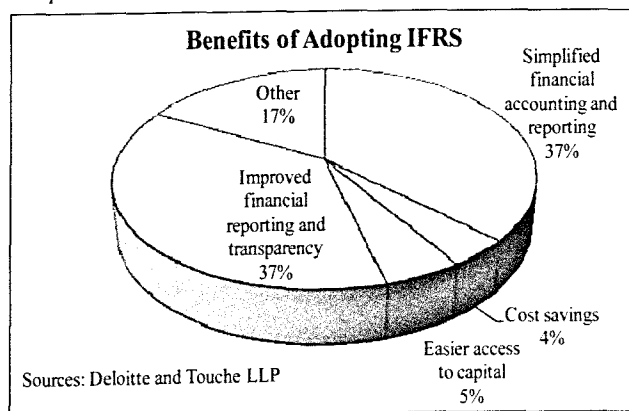
A key difference between IFRS and U.S. GAAP is that IFRS tends to be principles-based while U.S. GAAP tends to be rules-based. A rules-based accounting system is more detailed, with specific rules and guidelines to address as many unforeseen circumstances as possible. In contrast, a principles-based accounting system provides a more "conceptual basis for accountants to follow instead of a list of rules" (The CPA Journal Online). As a result, a principles-based accounting is more flexible, and allows more room for accountants to make choices.

Both accounting systems have their own advantages and disadvantages. The rules-based accounting system such as U.S. GAAP is normally criticized for its complexity and inflexibility. For example, in the article "Defining Principles-Based Accounting Standards," Shortridge and Myring state

that the rules-based accounting system "has made standards longer and more complex, and has led to arbitrary criteria for accounting treatments that allow companies to structure transactions to circumvent unfavorable reporting. In addition, the quest for bright-line accounting rules has shifted the goal of professional judgment from consideration of the best accounting treatment to concern for parsing the letter of the rule." Compared to a principles-based accounting system such as IFRS, the U.S. GAAP guidelines are much longer and more complex, with 25,000 pages of rules and standards compared to 2,500 pages of IFRS, according to PricewaterhouseCoopers, one of the "Big Four" public accounting firms. In fact, when talking about the complexity of GAAP, Robert Herz, FASB Chairman, said, "We've got something that's suited to a different era, that's not global. I believe it's better to create something new than to patch up something old and outdated."

In 2008, Deloitte & Touche LLP surveyed 200 finance professionals and found out 42% of the respondents indicated that their companies would prefer the earlier adoption of IFRS if permitted. Thirty seven percent of those respondents who favored the earlier adoption of IFRS thought the simplicity of IFRS was one of the major benefits of this accounting system. Graph 1 below demonstrates the proportions of benefits from adopting IFRS.

Graph 1.



One drawback of U.S. GAAP would be eliminated by the use of IFRS, because IFRS is frequently praised for its simplicity and flexibility. However, IFRS flexibility is also a disadvantage. For instance, even after the U.S. adopts IFRS, the financial statements between companies in the same industry may not be comparable, because IFRS allows more room than GAAP for accountants to make judgments in preparing financial statements and auditing them. This can open the door to earnings management, where managers manipulate income to increase a firm's net income and earnings per share (EPS). Commenting on the flexibility of IFRS, Financial Accounting Standards Board (FASB) Chairman Robert Herz stated, "Basically you can do almost anything you want."

This can also lead to large differences in earnings reporting. A study by Jack T. Ciesielski, the publisher of The

Analyst's Accounting Observer, found that, "among the 137 companies reporting 2006 results under both GAAP and IFRS, 63% showed higher earnings with the international standards. For the median company, profits jumped by 11%" (BusinessWeek). Further, many countries that adopt IFRS add their own exceptions, making the international accounting standard not so global after all. Lawrence A. Cunningham, a law professor at George Washington University, said, "We may get something that people think uniform but is not. There is a real risk of a veneer of comparability that hides a lot of differences." In their 2008 survey, Deloitte & Touche LLP found 33% of those respondents who favored the adoption of IFRS cited the "lack of accounting technical guidance" as a major challenge of IFRS. Graph 2 illustrates the proportions of major challenges of adopting IFRS.

Graph 2.

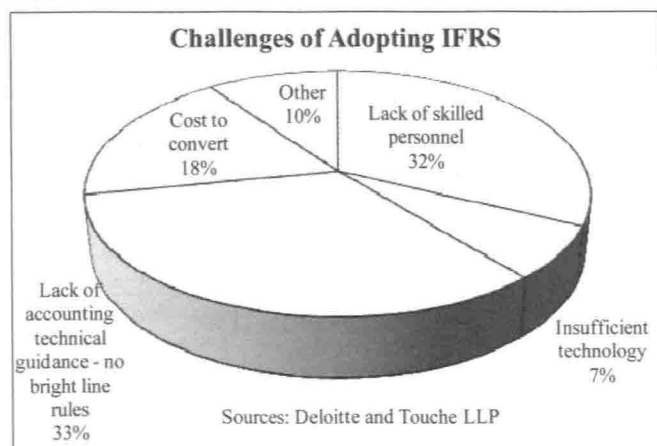


Table 1 demonstrates some of the major differences between IFRS and U.S. GAAP, and shows how strictly rules-oriented U.S. GAAP is compared to IFRS. The table is adapted from "IFRS and US GAAP – A Pocket Comparison" by Deloitte & Touche LLP.

Table 1.

Topic	IFRS	U.S. GAAP
Reporting a separate line item for "total comprehensive income"	Permitted, but not required.	Required.
Correction of errors	May either restate prior financial statements or include the cumulative effect in net profit and loss in the current financial statements.	Must restate prior financial statement.
Basis of property, plant, and equipment	May use either fair value or historical cost.	Generally required to use historical cost.
Revenue recognition guidance	Generally revenue recognition principles are consistent with U.S. GAAP but contain limited detailed or industry specific guidance.	More specific guidance exists on revenue recognition particularly relating to industry specific issues. In addition, public companies must follow more detailed guidance provided by the SEC.

GAAP rules are considerably more detailed with stricter interpretations than IFRS rules. Under GAAP, accountants have more guidance with respect to how to deal with financial statement transactions, whereas IFRS provides accountants more leeway to use their judgment and interpretation. In

some cases, if accountants are under the pressure to increase earnings, IFRS would appear to provide an easier pathway to earnings management. One way that accountants could manage earnings is through the application of rules relating to conservatism.

3. The significant role of accounting conservatism in U.S. GAAP and IFRS

Conservatism in U.S. GAAP will be examined first. FASB Concepts Statement No. 2 defines conservatism as "a prudent reaction to uncertainty to try to ensure that uncertainty and risks inherent in business situations are adequately considered." In other words, conservatism is "the accountant's tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses" (Basu, 1997). Thus, conservatism is a tendency to understate income rather than overstate income when dealing with ambiguous circumstances. For example, if there is a possibility that a firm may lose in a lawsuit, the firm would record this loss in its financial statements. However, if there is a possibility that a firm may win a lawsuit, the firm would not record the gain in its financial statements. A reason behind conservatism is that business practices have to deal with uncertainties on a day to day basis, requiring accountants to account for ambiguous situations with care.

According to Ross Watts in his paper "Conservatism in Accounting," conservatism cannot be used to describe the net change in income statement for any given period. In fact, he argues that "conservatism refers to the cumulative financial effects represented in the balance sheet and to income or earnings cumulated since the firm began operation" (Watts, 2003). To determine whether a firm is conservative or not, Watts believes we need to look at changes in net assets of a firm overtime. A conservative firm will have a "persistent understatement of net asset values." The understatement of net assets at the current period can "lead to overstatement of earnings in a future period by causing an understatement of future expenses," which is why we cannot overlook a firm's conservatism by only employing the net change in income statement to describe conservatism (Watts, 2003).

Although conservatism requires firms to verify profits or gains before recording them in their financial statements, it does not mean that firms can only recognize revenues once they receive cash; instead, conservatism requires firms to verify their cash flows (Watts, 2003). For instance, under accrual accounting, firms can recognize revenues once they have delivered goods and services to customers or fulfilled any obligations with the clients. Firms do not have to wait until they receive cash from customers to recognize revenues to be "conservative".

Conservatism benefits users of financial statements in multiple ways. In the paper "The Information Role of Conservatism", LaFond and Watts argue "conservative financial reporting is a governance mechanism that reduces the managers' ability to manipulate financial performance and

increases the firm's cash flows and value" (LaFond and Watts, 2007). The authors explain their argument by stating that managers have a tendency to influence firms' performance and stock prices during their tenure. This inappropriate use of time "deflects their efforts from increasing firm value, generating agency costs and reducing firm value even more." While helping firms prevent their managers from influencing financial performance, conservatism also helps "reduce information asymmetry between managers and outside investors", benefiting all financial statements' users (LaFond and Watts, 2007).

Although there are many studies on accounting conservatism in U.S. GAAP, few if any studies have been done to determine the impact of conservatism in IFRS. This is a new topic within the accounting field. Accounting researchers are still in the process of determining exactly what will be the IFRS rules. With the SEC considering the adoption IFRS in near future, it is important to examine IFRS from different perspectives in order to weigh the costs and benefits of adopting IFRS on conservatism.

4. Sample selection, hypotheses, and descriptive statistics

4.1 Hypotheses

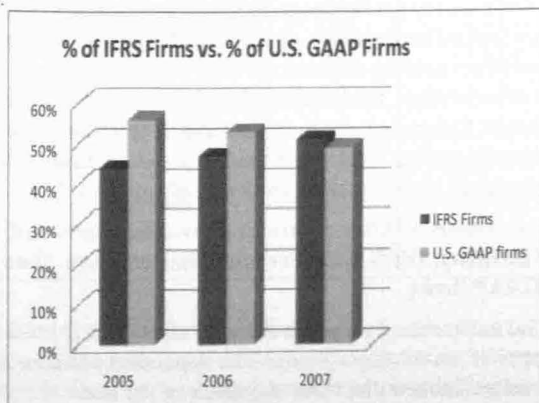
Using a 90% confidence level, the following hypotheses were tested:

- IFRS firms are more conservative than U.S. GAAP firms.
- IFRS firms have higher total assets than U.S. GAAP firms.
- Firms adopting IFRS have higher R&D intensity than firms adopting GAAP.
- After controlling for total assets and R&D intensity, IFRS firms are more conservative than U.S. GAAP firms.
- After controlling for the skewness of total assets and R&D intensity, IFRS is still responsible for a firm's conservatism.

4.2 Sample selection

The sample includes firm-year observations from the Compustat Global Industrial/Commercial File from 2005 to 2007. All IFRS firms were obtained from Compustat Global. About half of the sample firms (48.6%) use IFRS, and the

Graph 3:



rest of the firms (51.4%) use U.S. GAAP. The chart below demonstrates how the percentage of IFRS firms and U.S. GAAP firms in the sample changed from 2005 to 2007.

According to the chart, the trend of firms adopting IFRS has increased consistently in three years. Specifically, the percentage of IFRS firms changed from 44% in 2005 to 51% in 2007, indicating the rising popularity of the IFRS accounting system.

The sample used in this analysis consisted of 1,625 firm-year observations, and measured 4 main factors: year end market value of equity in millions (MVE), total assets in millions, book value of equity divided by market value of equity (BTM), and research and development (R&D) divided by total revenue (RND_REVENUE). Year-end market value of equity and total assets implies firm size. The bigger the firm, the more assets and equity it has. The BTM value measures how conservative the firm is; the lower value means the firm is more conservative. The RND_REVENUE value measures how heavily a firm invests in its R&D. Under the same accounting system, a firm with high R&D intensity is often more conservative than a firm with less R&D intensity.

4.3 Descriptive statistics

a. Hypothesis 1: Firms adopting IFRS are more conservative than firms adopting GAAP.

BTM values between IFRS firms and U.S. GAAP firms were compared using an independent t-test for two samples assuming unequal variances (determined through F-test comparisons of sample variances). Hypothesis 1 is true when BTM values for IFRS firms are significantly smaller than BTM values for U.S. GAAP firms at a 10% significance level (α). T-test result is shown in Table 2.

$$H_0 : BTM_{IFRS} - BTM_{GAAP} = 0$$

$$H_1 : BTM_{IFRS} - BTM_{GAAP} < 0$$

Table 2.

	IFRS	GAAP
Mean	0.817578233	0.888948905
Variance	0.503630364	0.628640377
Observations	789	836
Hypothesized Mean Difference	0	
t Stat	-1.914119837	
P(T<=t) one-tail	0.027890537	

Based on this t-test, the null hypothesis can be rejected. BTM values for IFRS firms are significantly smaller than BTM values for U.S. GAAP firms. However, BTM value is not a definitive factor in determining the conservatism of firms. Besides different accounting systems, other factors, such as firm size (total assets) or R&D intensity, can have an impact on the firms' conservatism. The next two hypotheses examine whether larger firm size (higher total assets) or higher R&D intensity can affect the conservatism of firms.

b. Hypothesis 2: IFRS firms have higher total assets (bigger size) than U.S. GAAP firms.

Values of total assets between IFRS firms and U.S. GAAP firms are compared using an independent t-test for two samples assuming unequal variances (determined through F-test comparisons of sample variances). Hypothesis 2 is true when total assets of IFRS firms are significantly larger than total assets of U.S. GAAP firms at a 10% significance level. Table 3 demonstrates the result of the t-test.

$$H_0 : \text{Total_AssetsIFRS} - \text{Total_AssetsGAAP} = 0$$

$$H_1 : \text{Total_AssetsIFRS} - \text{Total_AssetsGAAP} > 0$$

Table 3.

	IFRS	GAAP
Mean	29786.82293	2792934.859
Variance	205168289.5	2.18409E+15
Observations	789	836
Hypothesized Mean Difference	0	
t Stat	-1.709511734	
P(T<=t) one-tail	0.043863872	

Based on this t-test, the null hypothesis can be rejected. Total assets for IFRS firms are significantly smaller than the total assets for U.S. GAAP firms, which is the opposite result from the prior prediction. This result suggests that IFRS firms tend to be significantly smaller in size (own less total assets) than U.S. GAAP firms.

c. Hypothesis 3: IFRS firms have higher R&D intensity than U.S. GAAP firms.

R&D intensity between IFRS firms and U.S. GAAP firms are compared using an independent t-test for two samples assuming unequal variances (determined through F-test comparisons of sample variances). Hypothesis 3 is true when IFRS firms have significantly higher R&D intensity than U.S. GAAP firms. Table 4 illustrates the result of the t-test.

$$H_0 : \text{RND_REVENUEIFRS} - \text{RND_REVENUEGAAP} = 0$$

$$H_1 : \text{RND_REVENUEIFRS} - \text{RND_REVENUEGAAP} > 0$$

Table 4.

	IFRS	GAAP
Mean	0.014906459	0.007576989
Variance	0.00132021	0.000498483
Observations	789	836
Hypothesized Mean Difference	0	
t Stat	4.865230417	
P(T<=t) one-tail	6.41781E-07	

The result of this t-test suggests that IFRS firms invest more heavily in R&D compared to U.S. GAAP firms. That is, IFRS firms have a significantly higher ratio between R&D spending and total revenue.

A firm's R&D intensity can play a major role in determining the firm's degree of conservatism. For example, pharmaceutical companies have higher R&D intensity and are more conservative (smaller BTM value) than non-pharmaceutical firms, although they practice the same accounting system. To illustrate this fact, a simple regression was run to examine the relationship between R&D intensity

Table 5.

Regression Statistics					
Multiple R	0.055261701				
R Square	0.003053856				
	df	SS	MS	F	Significance F
Regression	1	2.821283296	2.82128	4.971590166	0.025903292
	Coefficients	Standard Error	t Stat	P-value	
Intercept	0.869679057	0.019920319	43.6579	4.8228E-276	
RND_REVENUE	-1.381441487	0.619562088	-2.22971	0.025903292	

and BTM value. The independent variable was R&D intensity and the dependent variable was BTM value. A negative relationship between two variables was expected. A negative value would mean that the higher a firm's R&D intensity, the lower its BTM value (more conservative). Table 5 illustrates the result of the regression test.

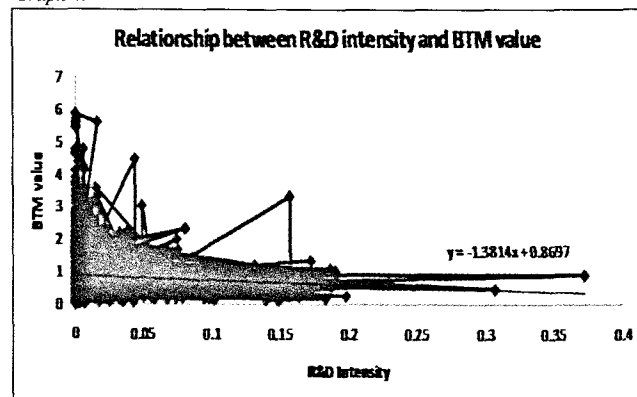
$$H_0 : \beta \text{RND_REVENUE} = 0$$

$$H_1 : \beta \text{RND_REVENUE} \neq 0$$

The equation of this regression is: $\text{BTM} = 0.8696 - 1.3814 * \text{RND_REVENUE}$

The small p-value ($p = 0.0259$) implies that there is a significant linear relationship between R&D intensity and BTM value. The negative coefficient (-1.38144), together with the small p-value, suggests that there is a significant negative linear relationship between R&D intensity and BTM value. The graph below illustrates this linear relationship.

Graph 4.



The results of this regression test suggest that a firm's conservatism may not be due to different accounting systems, but may instead be the result of R&D intensity. To confirm if different accounting systems are truly accountable for a firm's conservatism, R&D intensity was controlled in the next hypothesis. Referring back to Hypothesis 2, IFRS firms have significantly smaller total assets than U.S. GAAP firms. Thus, firm size (total assets) was controlled in Hypothesis 4.

d. Hypothesis 4: After controlling for total assets and R&D intensity, IFRS firms are more conservative than U.S. GAAP firms.

The independent variables are total assets, R&D intensity, and types of accounting systems. The dependent variable is BTM value. Table 6 illustrates the result of the test.

Table 6.

Regression Statistics					
Multiple R	0.069331067				
R Square	0.004806797				

	df	SS	MS	F	Significance F
Regression	4	4.440725911	1.11018148	1.95615557	0.098767735

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.901104443	0.027568982	32.6854446	2.1E-180
IFRS	-0.06691711	0.040006452	-1.67265791	0.09458775
RND	0.496598215	1.381809185	0.35938263	0.71935571
Total_assets	1.78662E-11	5.57925E-10	0.03202263	0.97445795
RND_REVENUE	-1.61085571	1.167845878	-1.37933929	0.16798054

$$H_0 : \beta_{IFRS} = \beta_{RND} * IFRS = \beta_{Total\ assets} = \beta_{RND_REVENUE} = 0$$

$$H_1 : \text{At least one } \beta \neq 0$$

The equation of the regression is: $BTM = 0.9011 - 0.0669 * IFRS - 0.4965 * RND + 1.786E-11 * Total_assets - 1.6108 * RND_REVENUE$.

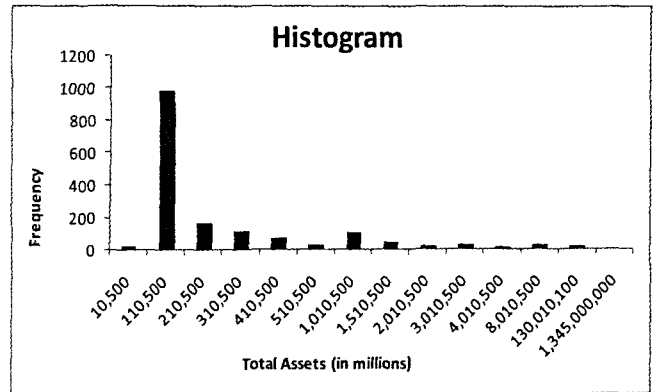
Based on this regression analysis, there is still a significant negative linear relationship between IFRS and a firm's conservatism after controlling for total assets and R&D intensity. The small p-value ($p = 0.0974$) supports this conclusion. There is, however, no significant linear relationship between total assets and BTM value ($p = 0.9744$). Lack of such a relationship can be due to the uneven distribution of total assets among firms. For example, some firms have significantly higher total assets than other firms do in the sample. In fact, the smallest total asset (in millions) of the sample was 10,014, while the largest total asset of the sample was 1,342,078,000. Table 7 and the histogram following illustrate the uneven distribution of total assets among sample firms.

Table 7.

Total Assets (in millions)	Frequency	% of total firms
10,500	19	1.17%
110,500	986	60.68%
210,500	162	9.97%
310,500	109	6.71%
410,500	68	4.18%
510,500	29	1.78%
1,010,500	100	6.15%
1,510,500	46	2.83%
2,010,500	19	1.17%
3,010,500	31	1.91%
4,010,500	12	0.74%
8,010,500	25	1.54%
130,010,100	18	1.11%
1,345,000,000	1	0.06%

Table 7 demonstrates the bin range of total assets (in millions). The frequency counts how many times total assets of sample firms are less or equal to the corresponding bin

Graph 5: Histogram:



number. For example, the frequency of 19 at bin range 10,500 means that there are 19 firms that have total assets less or equal to 10,500. The bin range and frequency are used to create the histogram in

According to Table 7 and Graph 5, a majority of sample firms (60.68%) have total assets (in millions) between 10,500 and 110,500. Very few firms (0.06%) have total assets greater than 130,010,100. The distribution of total assets is positively skewed, and this can distort the result of the multiple regressions in Hypothesis 4. Thus, to accurately determine whether different accounting systems are responsible for a firm's conservatism, the next hypothesis controlled for R&D intensity and the skewness of total assets. The skewness of total assets can be controlled by taking the log value of total assets.

Table 8.

Regression Statistics					
Multiple R	0.104501398				
R Square	0.010920542				

	df	SS	MS	F	Significance F
Regression	4	10.08886713	2.522216783	4.471652482	0.001350521

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.296030782	0.193175908	1.532441523	0.125608768
IFRS	-0.216124046	0.061719199	-3.501731189	0.000474785
RND*IFRS	0.491433851	1.377426484	0.356776828	0.721305349
Log of total assets	0.059103886	0.018676611	3.164593732	0.001581855
RND_REVENUE	-1.563245034	1.164195271	-1.342768755	0.17953497

e. Hypothesis 5: After controlling for R&D intensity and total assets, IFRS firms are more conservative than U.S. GAAP firms.

The four independent variables of the regression were: IFRS, RND * IFRS, log of total assets, and RND_REVENUE. RND * IFRS and log of total assets were two variables that control RND intensity and the skewness of total assets, respectively. The dependent variable was BTM value. The result of hypothesis 5 is shown in Table 8.

$$H_0 : \beta_{IFRS} = \beta_{RND} * IFRS = \beta_{Log\ of\ total\ assets} = \beta_{RND_REVENUE} = 0$$

$$H_1 : \text{At least one } \beta \neq 0$$

The equation of the regression is: $BTM = 0.296 - 0.2161 * IFRS + 0.4914 * (RND * IFRS) + 0.0591 * (\log \text{ of total assets}) - 1.563 * RND_REVENUE$.

There are two interesting findings in this regression analysis. First, a small p-value of 0.00047 shows different accounting systems are still accountable for a firm's conservatism after controlling for R&D intensity and the skewness of total assets. Specifically, firms adopting IFRS are still more conservative than firms adopting U.S. GAAP. Second, a significant positive relationship between log of total assets and BTM values ($p = 0.00158$) implies that IFRS seems to be more conservative in accounting for total assets. This result is consistent with the final conclusion in Hypothesis 2. IFRS firms tend to be smaller, or have less total assets, than U.S. GAAP firms.

5. Conclusions

Inspired by an increasing popularity of IFRS and the possible adoption of IFRS in the U.S., this paper compared accounting conservatism practices within IFRS and U.S. GAAP. The sample included 1,625 firms, over half of which practice U.S. GAAP. To determine the conservatism of IFRS firms compared to U.S. GAAP firms, the following were tested: (1) differences between total assets, and R&D intensity for two groups, and (2) the relationship between methods of accounting and firms' conservatism when not controlling for any factors, when controlling for R&D intensity and total assets, and when controlling for R&D intensity and the skewness of total assets. Differences were analyzed using t-tests and relationships were analyzed using regression procedures.

Most of the initial hypotheses were confirmed. Firms using IFRS have smaller book-to-market values than firms adopting U.S. GAAP, implying that IFRS firms are more conservative than U.S. GAAP firms. IFRS firms also have smaller total assets (smaller size) than U.S. GAAP firms. In addition, after controlling for all factors that may affect firms' conservatism, such as R&D intensity, total assets, and skewness of total assets, IFRS firms are still more conservative than U.S. GAAP. This suggests that IFRS is responsible for a firm's conservatism.

This study is one of the first known comparisons of conservatism across IFRS and U.S. GAAP accounting practices. In previous research, it has been suggested that U.S. GAAP is more comprehensive and rules-based than IFRS, which is more principles-based. This has led to the assumption that IFRS could be more easily manipulated and accountants could use discretion in applying the principles, which would lead to a decrease in conservatism and an increase in overstatement of net income. In contrast, the current study has established that IFRS follows the rules of conservatism more closely than U.S. GAAP.

There are multiple elements that affect a firm's conservatism. Examination of some of these factors in the current study provided further credibility to the theory that

IFRS will be more conservative than U.S. GAAP. Hopefully, this study will provide a foundation for additional research related to the use of IFRS in the United States.

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Mentor Comments:

Honors thesis mentor Carole Shook places Hang Pham's work in context by describing anticipated changes accounting principles and the questions raised by those changes with respect to conservatism in accounting. She emphasizes the originality of Hang's work.

Hang Pham's honors thesis research explores the newest and potentially most change in accounting standards ever. She examined International 'Financial Reporting Standards (IFRS) to determine if IFRS, or the current standards used in the United States, Generally Accepted Accounting Standards (GAAP), have more conservatism. There is no research like it published in the world. The topic is timely and her work is important for all companies adopting IFRS both in the U.S. and in the world.

IFRS is currently planned to be adopted in the U.S. in 2014, although non-U.S. companies who use IFRS and sell securities in the U. S. do not need to convert their financial statements to U.S. GAAP. IFRS is already being used in over one hundred countries and was adopted by the European Union in 2005. The reason for the change from GAAP to IFRS in the U.S. centers on the need for financial statements that

can be understood by investors from around the world non matter which country they are prepared in. Today's world is a global marketplace and using different financial accounting standards in every country hinders the ability of companies to find investors and grow, which slows a worldwide economy.

GAAP is a rules based system. All accounting reporting rules are carefully spelled out. IFRS is a system based on judgment. That means that accountants and auditors have a wide latitude in choosing how to deal with specific accounting issues. This judgment opens the door for companies to manipulate financial records, which potentially leads to earnings management and fraudulent financial reporting on a worldwide level. Conservatism using GAAP requires a higher level of proof to record revenue (good news) than to record expenses (bad news). With IFRS there is currently no information on conservatism. Conservatism is potentially one of the main ways under which earnings management can occur using IFRS. Hang conducted detailed statistical analyses and controlled for multiple factors in her hypotheses. She was able to determine that despite judgment being used by IFRS, companies using IFRS appeared to be more conservative. This is a major and important discovery.

Since IFRS is such a new area, accounting researchers are just beginning to gather and analyze data on the effects. This makes Hang's work completely innovative and distinctive. Her results will be among the first recognized works in this vital new area of accounting, especially in regards to the combination of IFRS and conservatism.

I was her primary thesis advisor. Due to the difficulties of collecting data, Dr. James Myers of the University of Arkansas was asked to be co-advisor. Dr. Myers had access through his editorial duties at a major accounting journal and connections to other accounting researchers to a database (Compustat Global) that is not available at the University of Arkansas. He assisted Hang in gathering the data that she used in her analysis.

Hang came up with this topic independently. Dr. Myers has begun to conduct research in IFRS and is an expert on the topic of conservatism in U. S. GAAP, and he provide some guidance as to articles related to conservatism and GAAP. However, his contributions apart from access to the database were minimal. The work and the ideas presented in this article belong exclusively to Hang.