EXAMINING THE IMPACTS OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) ON U.S. FIRMS BY APPLYING THE MODEL OF ERNST & YOUNG'S *TOWARDS CONVERGENCE SURVEY* FROM 2007

By

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A thesis submitted to the Honors College in partial fulfillment of the Bachelor's Degree with Honors in

Accounting

THE UNIVERSITY OF ARIZONA

MAY 2009

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1. Introduction

Over the past several years, the Securities and Exchange Commission (SEC) has debated the possible implementation of International Financial Reporting Standards (IFRS) by registered firms trading in U.S. stock exchanges.[1] With the goal of initiating the converging process, the Financial Accounting Standards Board (FASB)[2] and the International Accounting Standards Board (IASB)[3] have been working towards the convergence of the two sets of accounting standards. For years, FASB's pronouncements have been developed after considering their international counterparts in an attempt to minimize the differences between the two set of standards.

In the recent past, U.S. GAAP was considered the norm in accounting reporting around the world, especially in the U.S., as foreign filers were required to file form 20-F, which reconciled foreign set of standards (other national GAAPs and IFRS) to U.S. GAAP. However, the need for countries to maintain their own business identities became one of the reasons for adoption of International Accounting Standards. Moving away from U.S. GAAP is not only driven by national pride, but also by the need for a simpler set of standards. According to Pricewaterhouse Coopers (PWC), demand for IFRS in the U.S is fueled by four reasons: (1)

[1] The U.S. exchanges examined in this paper include the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the National Association of Securities Dealers Automated Quotations (NASDAQ).

[2] The SEC designated the FASB to set and oversee the accounting standards for public companies in the U.S. Though FASB is considered an independent board, it is the SEC which enforces the rules in the U.S. The Commission's actions are then monitored by Congress.

[3] The IASB is the body in charge of international standard setting. This independent board, based in London, was founded in 2001. The IASB is responsible for developing IFRS. It is comprised of 14 members from 9 countries, including the U.S. In April 2001, it succeeded the International Accounting Standards Committee (IASC), which was founded in 1973 and was responsible for issuing IAS (International Accounting Standards). The IASB's goal, as explained by Chairman Sir David Tweedie, is "to boost transparency by having a single set of high quality standards for companies worldwide."

globalization, (2) complexity of U.S. GAAP, (3) convergence timeline, and (4) creation of cost efficiencies. First, the globalization of capital markets, economic interdependence, foreign investment, and adoption by other countries and political organizations, including the European Union (EU)[4], has been one of the motivations for the expansion of IFRS. Second, the complexity of accounting standards and reporting is important, as well. Even now, the U.S. GAAP is considered the most intricate set of reporting standards in the world. (Saudagaran, 2001) U.S. GAAP is complex and rules-based, which causes not only high implementation costs, but also increases the probability of errors in financial reporting. U.S. GAAP covers over 25,000 pages of technical requirements. On the other hand, IFRS guidance is only 2,500 pages. IFRS strives to simplify accounting and more accurately portary the economic substance of firm's operations.

Third, the convergence timeline published by the SEC suggests a well-directed transition froom one set of standards to the other. The FASB and IASB have closely worked together to reduce the differences between and to better converge U.S. GAAP and IFRS. Fourth, early implementation of IFRS by many companies intends to create cost efficiencies, especially when IFRS is mandated by the SEC. IFRS proponents believe implementation is crucial. First, it will encourage comparability and consistency of financial reporting systems. IFRS adoption will also help to achieve an efficient allocation of resources. Last, it will facilitate investment across borders that will encourage the movement towards efficient global economic development. The ideal results would be improved investor confidence, risk comparison, and reduction in cost of capital. Comparable, transparent, and reliable financial information is essential to achieve

[4] The European Union was established in 1993. It consists of 27 countries across the European continent, creating a single representational economical market.

integration in the national and global capital markets. Delay in the transition to IFRS could prevent both foreign investment in U.S. firms and U.S. investment in foreign markets.

Several effects of the adoption of IFRS could negatively affect the U.S. and world economies. One of the biggest concerns is both the financial and economic costs of adopting IFRS. Though the specific amount is different for each country and each company depending on size, performance, and global expansion, the total cost of IFRS adoption is projected to be considerable for all. Economically, many argue that convergence will never be perfect because of differing political, social, and economic diversity. The same need for national identity that is driving the implementation of IFRS is a cause of concern. The legal, administrative, and cultural norms of each country are different. Accordingly, this compromises the comparability of financial information, consequently. The U.S. will also potentially forfeit regulation of the international reporting standards if implementation occurs. Administrative restructuration of the SEC, FASB, and other accounting regulation bodies will be necessary. It will be a difficult decision for the FASB and other standard-setter and regulatory bodies to surrender part of the accounting standards setting power to other organizations.

Perhaps the main concern of the financial communtiy in general is the possibility of not acquiring high quality financial information after adopting IFRS. Even though higher quality and comparability are two of the major goals of IFRS implementation, they may not be achieved across all companies in all countries. First, not all companies (including private fims) will be required to implement IFRS. This could negatively affect the ability of regulators and accounting professionalsto do their jobs. Second, with a principles-based set of standards, such as IFRS, there is more freedom for judgment by financial statement preparers to manage the results and disclosures, as they consider appropriate. Rule-based standards, including U.S. GAAP, are more

specific in their requirements and regulations. Third, the adoption of IFRS will also influence U.S. companies' performance metrics as a result of the more relaxed restrictions on standard judgment. Regardless, the implementation of IFRS in the U.S. is still uncertain. Moreover, IFRS future success in the U.S. is still not determined. Currently, the United States and global economies are experiencing considerable economic challenges. Though useful, the adoption experiences of other countries might not completely apply to the U.S. case because IFRS has not been adopted during such stressful conditions in the past. Nevertheless, the SEC announced a *Concept Release*[5] in August 2008 to gather information about the interest of the public to adopt IFRS.

In November 2008 the SEC released, a *Roadmap*[6] for IFRS implementation. Among the goals of the *Roadmap* is allowing 110 companies to adopt IFRS for the year ended 2010. These companies will be the largest by market capitalization in their respective industries. The *Roadmap* was open to public comments until February 19, 2009. After the transition of government administration in January 2009, the incoming SEC is Chairperson Mary Schapiro extended the deadline for comments until April 20, 2009. Furthermore, the U.S. administration is being cautious about transforming the accounting and financial reporting landscape before obtaining adequate insight from the public. After rapid advancement towards IFRS convergence, the probability of adoption in the U.S. has decreased in recent months.

[5] Concept Release On Allowing U.S. Issuers To Prepare Financial Statements In Accordance With International Financial Reporting Standards. SEC Release Nos. 33-8831; 34-56217; IC-27924; File No. S7-20-07; August 7, 2007.

[6] Roadmap for the Potential Use of Financial Statements Prepared in Accordance With International Financial Reporting Standards. SEC Release No. 33-8982; November 14, 2008.

In this paper, I use the *Towards Convergence Survey* by Ernst & Young as a guide to develop the supporting research. The *E&Y Survey* looks at 130 non-U.S. companies. Most of the companies are European Union natives. The *Survey* utilizes data from the companies' Form 20-F for the fiscal years ended between December 31, 2005 and March 31, 2006 and filed with the SEC before July 15, 2006. Specifically, I examine the results obtained after adjusting from IFRS to U.S. GAAP in net income/loss for the companies covered in the *E&Y Survey*. I estimate the change from IFRS to U.S. GAAP is obtained after measuring the percentage changes in specific accounting areas such as business combinations, leasing, inventory, financial instruments, and taxation. The *Towards Convergence Survey* is unique because it not only explains what the theoretical differences between U.S. GAAP and IFRS are, but also takes a more dynamic approach by using actual data to show that differentiation.

The underlying logic of my research design is to use projections after adjusting the results obtained by Ernst & Young, and apply similar changes to a selected sample of U.S. firms in the same industries. I use a sample of companies, including but not limited to U.S. S&P 500[7], similar to those analyzed in the *Toward Convergence Survey*.[8] Even though the original survey explores seven industries, I focus on four industries. Specifically, I analyze the following four industries: (1) financial services, (2) pharmaceuticals, (3) telecommunications, and (4) extractive industries. I chose these industries because they are the most comparable to U.S. current industries and they represent a significant part of the U.S. economy and capital markets. I utilize the *E & Y Survey* to analyze and project the potential impacts of IFRS adoption for U.S.

[7] The Standard & Poor's index weighs the values of the 500 largest cap firms traded in the U.S.

[8] Towards Convergence, A Survey of IFRS to U.S. GAAP differences. Ernst & Young's Capital Markets Group. 2007.

companies' net income/loss and other related financial indicators. Among other tests, percentage changes and other statistically significant parameters found are implemented in the U.S. companies' financial statements and accounting footnotes. Ultimately, differences are assessed for both first-time and non first-time adopters. Overall, this paper examines the likely effects of the U.S. adoption of IFRS on U.S. firms' financial statements. I expect to determine the specific differences between U.S. GAAP and IFRS have the highest impact on financial reporting.

The primary objective of this study is to examine the likely impact of IFRS adoption on on net income/loss and related financial indicators for U.S. firms if they adopted IFRS. I do this in several ways: First, I identify the characteristics in year ended 2006 of most of the firms used in the Survey. Those characteristics include total assets, market value of equity, book value of equity, market to book ratio, leverage, sales, net income, return on assets (ROA), and return on equity (ROE). Then, I collect a sample of the largest U.S. firms (in 2006) for each of the four industries I am focusing my research on and evaluate the same characteristics. Next, I obtain statistical measurements including the mean, median, lower and upper quartile, and other statistical measures for all characteristics with the objective of analyzing more in depth the information obtained. Next, using the *E & Y Survey's* model, I convert U.S. GAPP net income/loss to IFRS. I analyze the same specific accounting area differences (business combinations, leasing, financial instruments, inventory, etc.) for this reconciliation. Then, I project the impact of IFRS implementation in 2006 U.S. dollars in the U.S. sample's net income/loss. I do this by utilizing the percentage variation for each specific different accounting area in the non-U.S. firms' sample. Finally, I find the same statistical measures mentioned above for each specific accounting area for each of the industries in the U.S. sample. I also calculate

the absolute value change in each statistical measure when shifting from U.S. GAAP to IFRS. As well, I find percentage change for each measure.

My paper provides information to the overall international accounting literature. Accounting regulators will be interested in this research because it will provide an extra insight on what the potential effects of IFRS will be. Accounting researchers will be interested because it will open a door to more extensive investigation on the area. Analysts, investors, educators, students, companies' competitors, supplier, and consumer will be interested on the direct and indirect results of my research because IFRS adoption by the U.S. will influence them directly or indirectly. Through my research, these parties will be able to observe the possible outcomes and use it as a guide to make their desired assessments of the financial and economic information.

The limited research on the potential financial and practical effects of IFRS adoption in the U.S. makes my paper unique and interesting. Although academic research and practioner research reports on effects pre and post- implementation in other countries are available, research focusing on the U.S. are scarce. This paper offers the first significant evidence on the probable effects on U.S. firms of adopting IFRS and thus serves as a foundation for the understanding of the impact IFRS will have on U.S. companies, supported by previous literature, and financial statement analysis. As a caveat, I acknowledge that some of the specific accounting area differences (business combinations, taxation, inventory, etc.) used in the *E&Y Survey* and employed in my study may have changed since 2005. That is, what was a significant difference in 2005 may not be so in 2009.

The reminder of my paper is organized as follows: Section 2 focuses on background information and institutional setting. It includes information on the current standard setters for

U.S. GAAP and IFRS, the SEC and its *Roadmap,* and the differences between conversion and convergence. Section3 provides explanations on both overall and specific standard differences between U.S. GAAP and IFRS. Next, Section 4 offers information on the different opinions about the advantages and disadvantages of IFRS implementation. It also shows how the potential change will affected several related parties and the accounting regulation. I also offer an outlook on possible future regulatory actions. I provide a brief explanation of international evidence on IFRS adoption in the European Union (specifically the United Kingdom) and Australia in Section 5. Last, I conclude the paper with Section 6, where I expand on my research method and present the results.

2. Background Information, Institution Setting, and Differences

2.1 Brief History of IFRS

Before 2001, IFRS was known as IAS, International Accounting Standards. The International Accounting Standards Committee (IASC) issued IAS. After 2001, the International Accounting Standards Board succeeded the IASC and took charge of establishing IFRS. The current IFRS structure includes IAS and IFRS, as well as other interpretations issued before and after 2001 by the both committees. More than 12,000 companies in more than 110 countries, including the European Union, Australia, Singapore, and New Zealand have adopted IFRS around the world. Other countries, such as India and Canada expect a full transition from their local GAAP to IFRS by 2011. Mexico and Japan also appear likely to adopt IFRS in the near future. (AICPA)

Examples of the U.S. of the goals of adopting IFRS include creating a single set of high quality, transparent, and comparables global accounting standards, and building flawless global markets. Compared to U.S. GAAP, IFRS entails a different accounting and economic approach. IFRS is a principle-based approach while U.S. GAAP is a rules based methodology. One implication of this key difference is that it allows preparers under IFRS to have more discretion for interpretation of the standards. On the other hand, U.S. GAAP is rule-based, providing more specific technical guidance. Rule-based accounting standards may also be the cause of the increasing complexity of U.S. GAAP. U.S. standards are also believed to be inflexible to accommodate future changes in the market. Given those characteristics, accounting policy interpretations will likely differ significantly under U.S. GAAP versus IFRS.

2.2 Standard-setters and Regulators

2.2.1 The International Accounting Standards Board

In 1973, the IASC was formed with the objectives of developing and issuing International Accounting Standards (IAS). The IASC is a board of trustees from around the world. Initially, it consisted of nineteen trustees. Starting in 2005, the IASC has twenty-two trustees from areas including North America, Europe, and Asia. The trustees must come from different accounting backgrounds (auditors, preparers, users, academicians etc.) in order to achieve balance in the Committee. Some of the current responsibilities of the IASC include appointing IASB members, reviewing of IASB strategy, and approving IASB's budget, among others. Since 1993, the International Organization of Securities Commissions (IOSCO) has reviewed the standard setting actions of the IASC. ISCO is the international association of national securities regulatory

commissions, including the SEC. IOSCO endorsed the IAS in 2000 as they recommended that multinational issuers be allowed to use IAS in cross-border offerings and listings. In 1997, a Standing Interpretations Committee (SIC) was established to provide interpretation of IAS.

As of 2001, the IASB assumed responsibility for international accounting standard setting from the IASC. The IASB was initially comprised of fourteen members from around the world. Starting February 2009, the IASB consists of sixteen members. In addition, the IASB also includes the Standard Advisory Council, which provides advising on points of view for major standard-setting projects, and the International Financial Reporting Interpretations Committee (SIC previously), which interprets the application of IFRS. In 2003, the IASB establishes a new series of standards renamed International Financial Reporting Standards or IFRS. Current IFRS structure includes both IAS and IFRS.

2.2.3 The Financial Accounting Standards Board and the Securities Exchange Commission

Created in 1973, the FASB is an independent non-profit organization responsible for the development of accounting standards for the private sector in the United States. It is financed through private sources and is composed of five full-time independent members. The main goal of the FASB is to "to establish and improve standards of financial accounting and reporting for the guidance and education of the public, including issuers, auditors, and users of financial information." (FASB) The SEC has the authority to choose the form and content of the public firms' financial statements filed in the U.S. FASB standards for the private sector have been adopted by the SEC. Before being issued, Financial Accounting Standards (FAS), which constitute U.S. GAAP, are subject to an extensive review process, open for comment and public

hearings. Highly detailed rules characterize U.S. GAAP. The FASB is also responsible for issuing Technical Bulletins, which provide guidance on applying the standards. In order to identify issues and problems affecting financial reporting, the FASB established the Emerging Issues Task Force (EITF) in 1984.

Several recent corporate scandals have been a motivation for further analysis of the rule-based system used in the U.S. Among others, poorly implemented accounting standards were blamed for the actions that led to fraud scandals during the last decade. Such actions certainly caught the attention of standard setters, regulators, and other related parties. Surprisingly, negative cases such as Enron and WorldCom allowed for greater awareness of the accounting and overall financial reporting deficiencies and encouraged regulators to focus on those conditions. The U.S. Congress passed the Sarbanes-Oxley Act of 2002 (SOX)[9] as a response to those behaviors. , a general feeling of the U.S. being "overly rule-based" continued. (Ernst & Young) To respond to that reaction, SOX required the SEC to research the possibility of "adoption by the United States financial reporting system of a principles-based accounting system" and to report their findings within a year. According to the SEC, neither rules-based nor principles-based standards are perfect. The recommendation of the SEC staff who developed the research was to "more consistently develop standards on a principles-based or objectives-oriented basis" by standard-setters. Such standards should be based on a conceptual framework,

[9]SOX was signed into law by former President George W. Bush in July 30, 2002 as the Public Company Accounting Reform and Investor protection Act of 2002. The Act is applicable to all public companies that report to the SEC. Its main goal is to protect investors and other related parties by ensuring quality control in financial reporting, requiring stricter disclosures, fighting corporate and criminal fraud, developing audit, ethics, and independence standards. In order to oversee the fulfillment execution of the mentioned goals, the Public Accounting Oversight Board (PCAOB) was also established.

clearly state the objective, provide sufficient detail and structure to ensure consistency, and minimize exceptions. (SEC)

In 2002, the FASB and the IASB released a Memorandum of Understanding (known as "The Norwalk Agreement"), pledging to make the existing financial reporting standards compatible and to coordinate their future work to maintain consistent standards. Although, the FASB has been working together with the IASB since the beginning of the 1990s it was not until 2005, that the SEC published the first guide or "roadmap" for possible elimination of the reconciliation from IFRS to U.S. GAAP by companies listed in the U.S. In 2007, that reconciliation was eliminated by making Form 20-F non-compulsory. In 2007, the SEC not only dropped the requirement of reconciliation from IFRS to U.S. GAAP[10], but also published a Concept Release proposing IFRS implementation. In 2008, the SEC proposed the current *Roadmap* for IFRS adoption by 2010.

2.3 SEC's Proposed Roadmap for Adoption of IFRS

According to the *Roadmap,* published by the SEC in August 2008, approximately 34 out of 74 industry groups or 110 companies (largest by market capitalization) will be allowed, voluntarily, to adopt IFRS beginning with filings ending December 15, 2009. Under this proposal, the SEC will decide whether implementation should be compulsory by 2011. There are important incentives for those companies to implement IFRS before others do. Eligible industries for early adoption permitted to use IFRS for filings ended December 2009 if they are

[10] The reconciliation requirement included the submission of Form 20-F by foreign U.S.-listed firms to the SEC. (IASB)

"among the largest companies worldwide within [their] industry, and [their] industry uses IFRS as the basis of financial reporting more than any other set of standards." If this preliminary adoption is successful, all U.S. accelerated filers will be required to apply IFRS for year ending December 15, 2014, while non-accelerated and other smaller filers will do for filings ending December 1,5 2016 (SEC).

Private companies and not-for-profit organizations are not required to adopt IFRS. However, many might adopt IFRS regardless. IFRS adoption by those companies will most likely be driven by the firms' desire to access foreign capital markets. Both the FASB and the IASB are developing an IFRS version for small and medium-sized companies, which will minimize complexity and reduce costs. (AICPA) Both the FASB and IASB are preparing to cater to the needs of private companies through the IFRS for Non-Publicly Accountable Entities (NPAEs). The final draft for the standard is scheduled to be completed and published by the second quarter of 2009. The goal of the NPAEs is to "develop an IFRS expressly designed to meet the financial reporting needs of entities that (a) do not have public accountability and (b) publish general purpose financial statements for external users." (IASB) The NPAEs will also be simplified accordingly to the needs of the company by omitting irrelevant IFRS topics, providing simpler options to standards, simplifying recognition and measurement, reducing disclosures, and simplify drafting. (IASB)

The SEC opened the *Roadmap* release to public comment until February 19, 2009. After the U.S. government administration transition in January 2009, the period for comments has been extended until April 20, 2009. Before the change in government administration for the U.S., the adoption of international standards seemed inevitable. However, according to the new SEC Chairperson Mary Schapiro who was confirmed by the United States Senate on January 22,

2009, the implementation is not a priority for the moment. According to the SEC, the milestones of the *Roadmap* include: (1) improvements in accounting standards; (2) the accountability and funding of the International Accounting Standards Committee Foundation or IASCF (which oversees the IASB); (3) improvements in the ability to use interactive data-tagging technology (XBRL)[11] for IFRS reporting; (4) education and training related to IFRS; (5) limited early use of IFRS where this would enhance comparability for U.S. investors; (6) anticipated future timing of future rulemaking by the SEC; and (7) implementation of the mandatory use of IFRS by U.S. issuers. The FASB and the IASB continue their joint project to achieve convergence between U.S. GAAP and IFRS. Since their October 2002 and the Memorandum of Understanding in February 2006, both standard setters have closely developed a plan to ease and promote the transition process from U.S. GAAP to IFRS. (IASB, FASB)

2.4 Convergence and Conversion

In order to more deeply understand the impact of IFRS, it is important to contrast conversion (or adoption) and convergence. For years, the FASB and the IASB have worked together to converge their standards and achieve a closer comparability. Through the Norwalk Agreement of 2002, the IASB and the FASB pledged to; first, make their existing financial reporting standards fully compatible as soon as practicable and; second, to coordinate their future work programs to ensure that once achieved, compatibility is maintained. To achieve comparability, the FASB and the IASB agree to undertake a short-term project (until 2005) to

[11] Extensible Business Reporting Language. XBRL is an extensible, license-free language used to communicate information between businesses. It allows companies, regulators, investors, analysts and other users of the IFRS Taxonomy 2009 to benefit from easier filing, improved access to and comparison of financial data.

remove individual differences between the standards, to remove any other differences remaining after 2005 (long-term projects), to continue progress on joint projects, and to encourage the coordination of activities between the FASB and the IASB.

Some argue that the globalization of the capital markets and the popularity of IFRS adoption in more than 110 countries have outpaced the Norwalk convergence agreement. They believe that IFRS adoption by U.S. companies will be inevitable, eventually. Even if IFRS is not implemented immediately, because convergence between IFRS and U.S. GAAP is an ongoing process, eventually the standards will be very similar, if not the same. Once IFRS is considered for either conversion or convergence, an independent international standard setting board will be needed. Having two different standards setting bodies is not a sustainable model. Instead of simply switching to IFRS, convergence supporters suggest that the continuing joint work by the standard setters will more successfully create a single set of high quality global accounting standards.

In order to achieve a successful conversion to IFRS, it is important for companies to integrate all their departments in the process early. According to Danita Osling, Ernst and Young's Americas IFRS leader, some of the key actions needed to take include (1) establishing a structured methodology, (2) understanding the conversion timeline, (3) developing an information technology strategy, (4)implementing effective training, (5) learning from European conversion experiences, and (6) establishing robust communications plan. As stated by PricewaterhouseCoopers, successful conversion will require a structured methodology with strong project management. Companies will must clearly understand the conversion timeline and effectively identify the areas affected. The plan includes an adequate information

technology (IT) strategy[12], for both software and hardware, and effective training. For instance, on February 11, 2009, the SEC issued the final rule mandating the 500 largest companies to start using XBRL, an interactive data tagging language, by April 13, 2009. It provides an easy way to download financial statements to spreadsheets, improving analysis. Experts believe it will help to transition from U.S. GAAP to IFRS. Based on other countries' conversion experience, communication between all the parties involved is critical. Whether it is a voluntary or mandatory conversion, an assessment of the differences between U.S. GAAP and IFRS and the impact on the company will be necessary.

Motivations of multinational companies to adopt IFRS are to communicate financial information to related parties, to continue their involvement in international capital markets, and to expand their businesses. The ultimate goals are to increase transparency in reporting and to decrease restatement of information. However, those objectives have not completely been achieved in the past. Before the adoption of IFRS by the European Union, companies around the world still preferred U.S. GAAP to IFRS. From those companies that were required to file Form 20-F, 62 percent provided U.S. GAAP information in their annual report while 18 percent gave IAS information. (Ashbaugh, 2001) Based on an analysis of 65 financial statements of companies that adopted IFRS, Ernst & Young (2006) found that the introduction to IFRS had been a successful and financial reporting was still timely.

According to the *Roadmap* published by the SEC, some companies will have the option of adopting IFRS early. Some of the potential benefits of early conversion include the ability to

[12] This includes conducting assessment plan of the firm's system and implementing data, system configuration changes, and reporting changes to it. It also includes taking in to account how the system will support dual reporting requirements for the first years of adoption. Firms must also assess the necessary structure, the existing IT plans, and the application architecture to be implemented.

analyze the impact on tax-related issues, to adapt to IFRS knowledge resources, and to optimize human capital resources. Improved transparency and comparability for investors and rating agencies is also expected. As a result, an increase in efficiency to access capital from global sources is expected. Overall, companies are willing to adopt IFRS early to increase the perception of their market leadership. However, according to a recent survey by Protivity, Inc., 48 percent of U.S. companies have not prepared for the transition from U.S. GAAP to IFRS. Based on those results, companies need to take the necessary steps for an easier transition. In the same survey, 40 percent of the respondents stated that if given the choice between U.S. GAAP and IFRS, they would adopt IFRS. Finally, over 60 percent of the companies expect a significant cost associated with the implementation of IFRS.

Even if conversion occurs, significant differences will remain. For instance, IFRS does not allow the use of LIFO as an inventory costing method. It uses a single-step method for impairment write-downs rather than the two step used in U.S. GAAP (making write downs more likely). IFRS has also a different threshold and measurement for contingencies. Additionally, it has a different timeline for debt covenants. Lastly, IFRS offers a less extensive guidance regarding revenue recognition.

3. Differences between IFRS and U.S. GAAP

3.1 Overall Differences

As mentioned before, IFRS is believed to provide less detail. However, even after conversion, differences will remain. General differences include the ban from using LIFO[13] and the application of a single-step method for impairment write-downs rather than the two-step method used in U.S. GAAP. Other broad differences are related to treatment and measurement of contingencies and debt covenants. General financial statement reporting requirements, including disclosure, alternative accounting interpretations, and overall performance benchmarks differ between IFRS and U.S. GAAP. IFRS also includes limited industry-specific instructions, which depend on industry and individual facts and circumstances. Other issues include tax-related and information technology systems requirements, and stock-based compensation tracking.

Although IFRS is believed to create more comparability among companies from different countries, there are still specific country's regulations and cultural interpretations that influence reporting. These differences, including national culture and language translation, lead to a deficient comparability, interpretation, and application of IFRS across countries. Social psychologist Geert Hofstede states that specific difference among cultures are identified by analyzing people's uncertainty avoidance, individualism, achievement orientation, and power distance. According to (*Journal of Accountancy;* Feb 2009), "two accounting values directly influenced by national culture are conservatism and secrecy, which affect the measurement and disclosure of financial information in financial reports and have the greatest potential to affect

[13] Last-in, first-out inventory is an inventory cost method where most recently purchased items are recorded as sold first.

cross-border financial statement comparability." Among other actions needed in order to ensure a true comparability include the implementation of strong cultural awareness training and the improvement in the translation process. As the SEC has established, there is a great need for the "proper adherence to the requirements of the standards, but also understandable standards such that across the spectrum of issuers those requirements are consistently understood and applied." (SEC)

3.2Financial Statement Presentation and Interim Reporting

Under both standard IFRS and U.S. GAAP frameworks, the components of a complete set of financial statements include balance sheet, income statement, other comprehensive income for U.S. GAAP or statement of recognized income and expense (SORIE) for IFRS, statement of cash flows, and accompanying notes to the financial statements. Further, both frameworks require that the financial statements be prepared on the accrual basis of accounting (with the exception of the cash flows statement) except in rare circumstances. Both set of standards have similar concepts regarding materiality and consistency that entities have to consider in preparing their financial statements, as well. Under both frameworks, interim financial reporting requirements are substantially similar with the exception of the treatment of certain costs.

On the other hand, some differences include: (1) financial periods required, (2) layout of balance sheet and income statement, (3) presentation of debt as current versus noncurrent in the balance sheet, (4) classification of expense, extraordinary items, discontinued operations presentation, changes in equity, and disclosure of performance measures. To decrease complexity and the number of differences, in April 2004, the FASB and the IASB agreed to

undertake a joint project on financial statement presentation. For instance, in September 2008, the FASB and the IASB issued proposed amendments to FAS 144 *Accounting for the Impairment or Disposal of Long-Lived Assets* and IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* to converge the definition of discontinued operations. For interim reporting, the treatment of certain costs in periods in IFRS where each period is viewed as a discrete reporting period is one of the main differences. Additionally, under IFRS, costs that do not meet the definition of an asset at the end of an interim period are not deferred and liabilities recognized at an interim reporting date must represent an existing obligation.

3.2.1 Business combinations

Accounting for business combinations is one of the areas where IASB and FASB have been closely working to attain convergence. The issuance of FAS 141(R) and IFRS 3(R) (*Business Combinations*), represent the culmination of the first major collaborative convergence project between the IASB and the FASB. According to FAS 141(R) and IFRS 3(R), all business combinations are accounted for using the acquisition or purchasing method. In addition, the acquirer must be identified and the fair value of separate assets, liabilities, and contingent liabilities in acquired business must be determined. Information technology includes any intangible assets. Customer relationships are not commonly recognized under IFRS either.

As one of the convergence actions being taken, expensing acquisition costs rather than capitalizing will be required. Similarly, restructuring costs will be recognized separately from a business combination in the post combination period. Even though the new standards are substantially converged, certain differences will exist once the new standards become effective.

After IFRS is adopted, there will be significant recognition differences, at the acquisition date, with respect to contingent liabilities. Additionally, the new measurement for contingent liabilities might create a higher volatility under IFRS. Some of the remaining differences include: (1) measurement of non-controlling interest, assets, and liabilities arising from contingencies, (2) acquiree operating leases, and (3) combination of entities under common control.

3.2.2 Consolidation, Joint Venture, and Equity Method

Under both U.S. GAAP and IFRS, the determination of whether or not entities are consolidated by a reporting enterprise is based on control, although differences exist in the definition of control. Generally, under both sets of standards all entities subject to the control of the reporting enterprise must be consolidated. Further, uniform accounting policies are used for all of the entities within a consolidated group. Under both sets of standards, the consolidated financial statements of the parent and its subsidiaries may be based on different reporting dates as long as the difference is less than three months. However, under IFRS a subsidiary's financial statements should be as of the same date as the financial statements of the parent's unless is it impracticable to do so. An equity investment that gives an investor significant influence over an investee ("an associate" in IFRS) is considered an equity-method investment under both U.S. GAAP and IFRS if the investee is not consolidated.

Joint ventures under IFRS are accounted for using either a proportionate consolidation or the equity method. Under the equity method, investment stated initially at cost and it is adjusted thereafter for investor's share of post-acquisition changes in net assets. The income statement

includes investor's share of profit or loss of the investment. Under IFRS, the conclusion regarding whether or not to consolidate is argued on the power a company has to govern the financial and operating policies of another. This differs from U.S. GAAP, which employs a two-tiered considerations model with complex evaluation criteria. The U.S. GAAP rules provide a multitude of exceptions allowing companies to achieve off balance sheet treatment in certain circumstances. In general, the IFRS approach leads to increased consolidation. The entities consolidated within the financial statements may vary with, generally, more entities consolidated under IFRS. IFRS focuses on a control-based model, with consideration of risks and rewards where control is not apparent. U.S. GAAP utilizes a dual consolidation decision model, first assessing a variable interest model and then a voting control model. U.S. GAAP is undergoing significant changes in converging with IFRS in this area. Companies will be required to present non-controlling interests as part of equity following the implementation of new U.S. GAAP guidance. Additionally, in the event of a loss of control, to the extent any ownership interest is retained, the new U.S. GAAP guidance will require that the interest retained be re-measured at fair value on the date control is lost. Any resulting gain or loss will be recognized in earnings. This is similar to the accounting currently required under IFRS.

3.2.3 Revenue recognition

In many regards, IFRS and U.S. GAAP are supported by similar principles. Revenue recognition under both U.S. GAAP and IFRS is tied to the completion of the earnings process and the realization of assets from such completion. Under both sets of standards, revenue is not recognized until it is both realized and earned. Ultimately, both U.S. GAAP and IFRS base

revenue recognition on the transfer of risks and both attempt to determine when the earnings process is complete. Both U.S. GAAP and IFRS contain a revenue recognition criterion that, while not identical, is similar.

On the other hand, U.S. GAAP uses additional layers of rules in its guidance. For instance, U.S. GAAP provides highly prescriptive revenue recognition guidance, including a significant number of standards issued by the various standard setting bodies in the US. These highly detailed standards often dictate industry-specific accounting. By comparison, IFRS has just two primary revenue standards and a handful of revenue related interpretations that capture all revenue transactions. The broad principles laid out in IFRS are generally applied without elaboration and without exceptions for specific industries. Broad-based differences in the accounting for the provision of services may influence the timing of revenue recognition. Differences in revenue recognition may exist because of differing levels of specificity between the two set of standards. For instance, the detailed U.S. rules often contain exceptions for particular types of transactions. Further, public companies in the U.S. must follow additional guidance provided by the SEC staff. Conversely, a single standard (IAS 18 *Revenue*) exists under IFRS, which contains general principles and illustrative examples of specific transactions.

Additional differences involve the separation of multiple deliverable arrangements into components, along with the allocation of consideration between those components, may also affect the timing of revenue recognition. Where differences exist, revenue may be recognized earlier under IFRS. The guidance in IFRS with respect to how customer loyalty programs are treated may drive significant differences. The incremental cost model that is permitted under U.S. GAAP is not accepted under IFRS. Nevertheless, both the FASB and the IASB are

currently conducting a joint project to develop concepts for revenue recognition and a standard based on those concepts.

3.2.4 Financial Instruments

While the hedging models under IFRS and U.S. GAAP are founded on similar principles, there are a number of detailed application differences, some of which are more restrictive under IFRS and others of which are more restrictive under U.S. GAAP. Both set of standards require financial instruments to be classified into specific categories to determine the measurement of those instruments, clarify when financial instruments should be recognized or derecognized in financial statements, and require the recognition of all derivatives on the balance sheet. Hedge accounting and use of a fair value option is permitted under both. However, some financial instruments considered equity under U.S. GAAP will need to be treated as debt when reporting under IFRS. Instruments with contingent settlement provisions, such as those requiring redemption upon a change in control, represent one example. The classification of these instruments as debt will not only affect net assets and debt to equity relationships, it will also result in increased interest expense. For some companies, finding the appropriate debt/equity capitalization ratio under a new accounting definition and qualifications of debt will require careful study. Generally, warrants issued in the U.S. can be net share settled and, hence, are classified as equity under U.S. GAAP. Warrants of that nature would, under IFRS, be considered derivative instruments and would be marked to market through earnings.

Furthermore, more instruments are likely to be classified as liabilities, as opposed to equity, under IFRS. Because balance sheet classification drives the treatment of disbursements

associated with the instruments in question, the classification differences would also affect earnings. More instruments are likely to be split, resulting in treatment as two separate instruments under IFRS. The split accounting under IFRS versus the singular accounting under U.S. GAAP can create a significantly different balance sheet presentation while also impacting earnings.

In relation to hedge accounting, to test effectiveness, IFRS does not permit the shortcut method that is accepted under U.S. GAAP. As a result, if hedge accounting is to be maintained on an uninterrupted basis, current U.S. GAAP reporting entities using the shortcut method will need to prepare documentation that supports hedge accounting (outside of the shortcut strategy), with said documentation in place no later than the transition date. IFRS does not include a requirement for net settlement within the definition of a derivative, effectively resulting in more instruments being recognized as derivatives under IFRS. Hence, more instruments will be recorded on the balance sheet at fair value with adjustments through earnings and greater earnings volatility when reporting under IFRS. The IASB is currently working on a project to establish a single source of guidance for all fair value measurements required or permitted by existing IFRS to reduce complexity and improve consistency in their application (similar to FAS 157). The IASB intends to issue an exposure draft of its fair value measurement guidance in the second quarter of 2009.

3.2.5 Share-based payments

The guidance for share-based payments, FAS 123 (Revised) and IFRS 2 (both entitled Share-Based Payment), is largely convergent. Both the IFRS and U.S. GAAP require a fair

value-based approach in accounting for share-based payment arrangements whereby an entity (1) acquires goods or services in exchange for issuing share options or other equity instruments or , (2) incurs liabilities that are based, at least in part, on the price of its shares or that may require settlement in its shares. Under both sets of standards, this guidance applies to transactions with both employees and non-employees, and is applicable to all companies. Both FAS 123 and IFRS 2 define the fair value of the transaction to be the amount at which the asset or liability could be bought or sold in a current transaction between willing parties. Further, both IFRS and U.S. GAAP require, if applicable, the fair value of the shares to be measured based on market price (if available) or estimated using an option-pricing model. In the rare cases where fair value cannot be determined, both standards allow the use of intrinsic value. Additionally, the treatment of modifications and settlement of share-based payments is similar in many respects under both set of standards. Finally, both set of standards require similar disclosures in the financial statements to provide investors sufficient information to understand the types and extent to which the entity is entering into share-based payment transactions.

However, there are still some differences between the two frameworks with respect to when and in what amounts expenses should be recognized. Some of those differences are related to (1) transactions with nonemployees, (2) measurement and recognition of expense, (3) equity repurchase features at employee's election, (4) deferred taxes, and (5) modification of vesting terms that are improbable of achievement. The financial reporting impact of these differences may drive some companies to consider restructuring their share-based plans. Companies that issue awards that vest ratably over time (may encounter accelerated expense recognition as well as a different total value to be expensed, for a given award, under IFRS. Income tax expense or benefit related to share-based payments may be more variable under IFRS. There are differences

as to when an award is classified as a liability or as a component of equity. Differences can have profound consequences. For instance, since awards classified as liabilities require ongoing valuation adjustments through earnings each reporting period, the change may lead to greater earnings volatility. No significant convergence activities are underway or planned for share-based payments.

3.2.6 Employee benefits

Under both set of standards, the periodic postretirement benefit cost under defined contribution plans is based on the contribution due from the employer in each period. The accounting for defined benefit plans has many similarities as well. The defined benefit obligation is the present value of benefits that have accrued to employees through services rendered to that date, based on actuarial methods of calculation. Additionally, both U.S. GAAP and IFRS provide smoothing income mechanisms in calculating the period pension expense.

Under IFRS, companies may elect to account for actuarial gains/losses in a manner such that the gains/losses are permanently excluded from the primary statement of operations. Differing restrictions over how assets are valued for the purposes of determining expected returns on plan assets exist under IFRS. IFRS allows for the separation of certain components of net pension costs whereas U.S. GAAP does not. The interest cost and return on assets components of pension cost may be reported as part of financing costs within the statement of operations under IFRS as opposed to operating income under U.S. GAAP. Overall difference in the employee benefits accounting area include: (1) valuation of defined benefit plan assets, (2) actuarial method used for defined benefit plans, (3) treatment of actuarial gains and losses for

annual pension cost, (4) amortization of deferred actuarial gains and losses,(5) amortization of prior service costs, (6) recognition of plan asset or liability in the balance sheet, (7) settlements and curtailments, and (8) definition of multi-employer pension plans. The FASB and the IASB have agreed to a long-term convergence project that will address the accounting for postretirement benefits area. The IASB issued a discussion paper in March 2008, as the first step of the IASB project, addressing a limited number of topics in this area, and is expecting to issue an exposure draft in 2009.

3.2.7 Income Tax

Both frameworks require entities to account for both current tax effects and expected future tax consequences of events that have been recognized (i.e. deferred taxes) using an asset and liability approach. Neither U.S GAAP nor IFRS permits the discounting of deferred taxes. However, there are differences in the recognition and measurement criteria of uncertain tax positions (i.e. income tax contingencies) under IFRS and U.S. GAAP. Additionally, the physical location of inventory that has moved cross border within a consolidated group can affect tax expense differently under the two frameworks. Differences in the treatment of subsequent changes to certain previously established deferred taxes could result in less volatility in the statement of operations under IFRS. Deferred taxes on intragroup profits are determined by reference to the buyer's tax rate under IFRS. When reporting under U.S. GAAP, any income tax effects resulting from intragroup profits are deferred at the seller's tax rate.

Other remaining general differences include: (1) tax basis, (2) uncertain tax positions, (3) initial recognition exemption,(4) recognition of deferred tax assets, (5) calculation of deferred

tax asset or liability, (6) classification of deferred tax assets and liabilities in balance sheet, (7) recognition of deferred tax liabilities from investments in subsidiaries or joint ventures, and (8) taxes on intercompany transfers of assets that remain within a consolidated group. The IASB is expected to publish an exposure draft to replace IAS 12 in 2009 that will eliminate certain of the differences that currently exist between U.S. GAAP and IFRS.

3.2.8 Inventory

Both U.S. GAAP and IFRS define inventory as assets held for sale in the ordinary course of business, in the process of production for such sale, or to be consumed in the production of goods or services. Under both set of standards the cost of inventory includes all direct expenditures to ready inventory for sale, including allocable overhead, while selling costs are excluded from the cost of inventories, as are most storage costs and general administrative costs.

In contrast, some of the inventory differences between IFRS and U.S. GAAP include: (1) costing methods, (2) measurement, (3) reversal of inventory write-downs, and (4) permanent inventory markdowns under the retail inventory method. Under IFRS, inventory is stated at the lower of cost and net realizable value similarly to lower of cost or market in U.S. GAAP. Additionally, inventory cost includes purchase price, conversion, and other expenses to bring items to their present location and condition. Where individual items are not identifiable, FIFO method is used. LIFO is unacceptable under IFRS. At present, there are no other ongoing convergence efforts with respect to inventory.

3.2.9 Long-lived Assets

Although U.S. GAAP does not have a comprehensive standard that addresses long-lived assets, its definition of property, plant and equipment is similar to IAS 16 *Property, Plant and Equipment* (PPE) under IFRS, which addresses tangible assets held for use that are expected to be used for more than one reporting period. PPE under IFRS is measured initially at cost, including borrowing costs directly attributable to the acquisition, construction, or production if policy adopted consistently. It may be revalued to fair value if entire class of assets is so treated. Surpluses on revaluation are recognized directly to equity, not in the income statement. Deficits on revaluation are recognized as expenses in the income statement under IFRS. Depreciation is recognized as an expense in the income statement unless it is included in the carrying amount of another asset. Depreciation of PPE for development activities may be included in the cost of an intangible asset recognized (IAS38 *Intangible Assets*). Depreciation method and recoverable amount are reviewed at least annually. In most cases, the method is straight line. However, other depreciation methods are allowed.

Other major differences related to long-lived assets between IFRS and U.S. GAAP include: (1) revaluation of assets, (2) depreciation of asset components, and (3) measurement of borrowing costs. Other differences include hedging gains and losses related to the purchase of assets, constructive obligations to retire assets, the discount rate used to calculate asset retirement costs, and the accounting for changes in the residual value. There are no further convergence plans between IFRS and U.S. GAAP at this time.

3.2.10 Leases

The overall accounting for leases under U.S. GAAP and IFRS (FAS 13 *Accounting for Leases* and IAS 17 *Leases*, respectively) is similar, although U.S. GAAP has more specific application guidance than IFRS. Both focus on classifying leases as either capital or operating, and both separately discuss lessee and lessor accounting. The main differences include: (1) lease of land and building, (2) recognition of a gain or loss on a sale and leaseback when the leaseback is an operating leaseback, and (3) recognition of gain or loss on a sale when the leaseback is capital. Additionally, IFRS transfers substantially all the risks and rewards incidental to ownerships to the lessee for the finance of leases. Leases recognized on the balance sheet as an asset to lessee and as a liability to the lessor.

Other differences include: the treatment of a leveraged lease by a lessor under FAS 13 (IAS 17 does not have such classification), real estate sale-leasebacks, real estate sales-type leases, and the rate used to discount minimum lease payments to the present value for purposes of determining lease classification and subsequent recognition of a capital lease. The FASB and the IASB are jointly working on a long-term convergence project on lease accounting with an overall objective of comprehensively reconsidering the existing guidance issued by both standard setters. Together FASB and IASB are working on convergence of the accounting standards for lessees in which no longer would there be categories and the current finance lease model would be applied to all leases. The standard is forecasted to be finalized in 2011.

3.2.11 Intangible Assets and Impairment

The definition of intangible assets as nonmonetary assets without physical substance is the same under both U.S. GAAP's FAS 141(R) and FAS 142 *Goodwill and Other Intangible Assets* and the IASB's IFRS 3(R) and IAS 38 *Intangible Assets*. The recognition criteria for both accounting models require that there be probable future economic benefits and costs that reliably measured. Some costs are never capitalized as intangible assets under both models, such as start-up costs. Amortization of intangible assets over their estimated useful lives is required under both U.S. GAAP and IFRS, Goodwill is never amortized. Some of the remaining differences include development costs, advertising costs, and revaluation. In the 2008 Memorandum of Understanding, the FASB indicated that it would consider in the future whether to undertake a project to eliminate differences in the accounting for research and development costs by fully adopting IAS 38 at some point in the future.

Differences in the asset impairment-testing model may result in assets being impaired earlier under IFRS. The broad based requirement to capitalize development costs under IFRS creates the potential for differences compared with U.S. GAAP, wherein development costs are generally expensed as incurred. IFRS prohibits (while U.S. GAAP permits) the use of the last-in, first-out inventory costing methodology. IFRS does not have bright line testing criteria for the classification of leases. In addition, both achieving sale/leaseback accounting and earlier gain recognition under sale/leaseback accounting are more frequent when reporting under IFRS. Under IFRS, goodwill must be assessed for impairment at least annually. Impairment is charged to the income statement and impairment provisions on goodwill are not subsequently reversed.

Both U.S. GAAP and IFRS contain similarly defined impairment indicators for assessing the impairment of long-lived assets. Both standards require goodwill and intangible assets with indefinite lives to be reviewed at least annually for impairment and more frequently if impairment indicators are present. Long-lived assets are not tested annually, but rather when there are indicators of impairment. The impairment indicators in U.S. GAAP and IFRS are similar. Differences in the impairment area include goodwill and long-lived assets method of determining impairment and impairment loss, allocation of goodwill, and impairment loss calculation for indefinite life intangible assets. As part of their 2008 Memorandum of Understanding, the FASB and the IASB agreed to defer work on completing their impairment-related project until their other convergence projects are complete.

3.2.12 Earnings per Share

Both IFRS and U.S. GAAP require presentation of basic and diluted EPS on the face of the income statement, and both use the treasury stock method for determining the effects of stock options and warrants on the diluted EPS calculation. Both set of standards also use similar methods of calculating Earnings per Share (EPS), although there are a few detailed application differences. Those include contracts that may be settled in shares or cash, calculation of year-to-date diluted EPS for options and warrants using the treasury stock method and for contingently issuable shares, and treatment of contingently convertible debt. Both FASB and the IASB are jointly working on a short-term convergence project to resolve the differences in the standards, with both FASB and the IASB issuing exposure drafts in August 2008 and planning to issue a final standard in the second half of 2009. The FASB and the IASB have tentatively decided to

adopt the approaches used by IFRS to eliminate the significant differences noted above, with the exception of the treatment of contingently convertible debt.

3.2.13 Foreign Currency Translations

Both set of standards require foreign currency transactions of an entity to be re-measured into its functional currency with amounts resulting from changes in exchange rates being reported in income. Once a subsidiary's financial statements are re-measured into its functional currency, both standards require translation into its parent's functional currency with assets and liabilities being translated at the period-end rate, and income statement amounts generally at the average rate, with the exchange differences reported in equity. Both standards also permit the hedging of that net investment with exchange differences from the hedging instrument offsetting the translation amounts reported in equity. Some of the differences between the two set of standards include translation/functional currency of foreign operations in a hyperinflationary economy, treatment of translation difference in equity when a partial return of a foreign investment is made to the parent, and consolidation of foreign operations. There are no convergence activities are underway or planned for foreign currency matters.

4. Implementation Outlook and the Regulatory Landscape

4.1 Advantages and Disadvantages

Even though the implementation of IFRS by more than 110 countries around the world has been somewhat positive, uncertainty of the success its application in U.S. GAAP regulated

companies is still unknown. IFRS will not only introduce new accounting and reporting regulations, but also new measurement and disclosure requirements. For instance, footnotes to financial statements will allow more flexibility in information presentation. Opinions about the advantages and disadvantages of IFRS implementation are contrasting. Some people supporting the switch to IFRS argue that transparency, comparability, and accountability will be enhanced by implementing a unique global set of standards. Such comparability will empower investors to make better-informed investment decisions. As a result, more foreign investors will be attracted to U.S. firms and capital markets. Additionally, companies with many overseas rivals or subsidiaries may find their financial results are more comparable to their competitors if they prepare their financial statements under IFRS. They might also be able to use one accounting language company-wide. Another advantage, which has not completely demonstrated, is the potential reduction in the cost of capital of firms. (Daske, 2006)

On the other hand, people against argue the switch to IFRS could also diminish comparability among U.S. financial statements. Consequently, this will hurt the ability of regulators and auditors to do their jobs. What makes sense overseas may not make sense for us. For instance, it might be challenging some countries to understand the principles-based approach of IFRS, which requires a high level of individual judgment. Enforcement and cultural interpretations of the international rules can vary by country. As well, political pressures could make accounting rules more difficult to enforce. In France and Germany, for example, the government has developed a major role in regulating accenting, which main goal is to protect creditors. In the United Kingdom and the U.S., the goal of the independent boards that regulate accounting is to offer higher quality information to investors. In contrast, in the Netherlands, the goal is a combination of the last two examples.

Domestically, IFRS adoption's results are still unclear. For instance, the conversion will have a significant impact on U.S. companies' performance metrics. The change in those measurements will require stronger communication between all the parties involved. Users do not believe there is a viable way to ensure proper controls when running two sets of accounting standards simultaneously. As a result, confidence in the companies' performance is anticipated to decline and imprudent accounting is projected to grow. Additionally, U.S. issuers without significant customers or operations outside the U.S. may resist adoption, as no significant market incentive is evident. Other filers might still be required to use U.S. GAAP for other regulators and authorities. This will generate extra costs not currently in existence.

A complaint by companies and their executives around the U.S. is the potential cost to switch from U.S. GAAP to IFRS. According to the SEC, the implementation cost for the first 110 adopter will be around $32 million on average. Disapproval of the conversion has been even more evident after the global financial and economic crisis has been amplified. Recession fears and scarce resources support those claims. Implementation costs will mostly be determined by size and nature of the company. In order to measure the initial cost, it will be imperative to identify and quantify the significant standard differences affecting the company. Staff training and learning curve, IT implementation, and other accounting and economic costs will be incorporated. For those adopting early, a possible reduction of capital and financial reporting-related operating costs might result. Companies have had to make considerable efforts to meet the new reporting requirements and auditors and analysts too have had to invest a great deal of time and money in training and new working methods.

Ultimately, an accurate measurement of the cost of transition has not been measured yet. However, according to a study into the introduction of IFRS commissioned by the EU, the cost

of the first adoption of IFRS is estimated to be about 4 million Euros[14], with the annually recurring costs amounting to more than 700,000 Euros. (ICAEW, 2007) Still, it is believed that the U.S. could pay a significant opportunity cost, higher than the financial costs if it does not transition to IFRS. While the direct costs of adopting IAS/IFRS in firms' accounting systems have been estimated by adopting firms and their consultants, the total economic costs and particularly the economic benefits are more difficult to quantify. The perceived increase in transparency, quality, and comparability of financial reports under IAS/IFRS across countries should make it less difficult and costly for investors to compare the opportunities and risks involved in investments in the global financial markets and thus lower the rates of return they require for providing funds. (Daske, 2006)

4.2 Affected Parties

The findings of this paper are relevant to all financial information users including the sample companies, their competitors, related industries, investors, regulators, standards setters, academicians, accountants and accounting firms, among others. Positively or negatively, the transition, implementation, and results of adopting or converging with IFRS will create significant changes in the U.S business environment.

[14] This amounts to about 4.7 million dollars (December 31, 2005 exchange rate).

4.2.1 Analysts, Investor, and Credit Rating Institutions

Analysts and investors will be affected, whether negative or positively. Positively, both groups will probably be benefited by being able to analyze more homogeneous data in annual reports and to translate them into comparable data across companies. Similarly, credit rating institutions will need to analyze firms adopting IFRS deeply. Improved metrics are required and their implementation needs to be vigilantly applied. This is not only be significant because the reported state of firms will be different, but also because the current capital markets system requires improved, more detailed information to make wise decisions. The current global crisis was caused in part because firms were not carefully rated. Training and understanding of the changes IFRS implementation or conversion will bring to U.S. companies is important for the well management and preservation of the domestic and foreign capital markets. Findings in (Ashbaugh and Pincus,2001) suggest that IFRS are of higher quality by showing that firms applying IFRS exhibit smaller analyst forecast errors. In particular, it is found that the greater the difference between domestic standards and IFRS, the greater are the forecast errors and that forecast errors tend to be smaller after firms adopt IFRS. For analysts, investors, and credit rating institutions, impact of IFRS will not only be measured by using specific performance indicators or ratios, but also by vigilantly looking at the experiences of other countries and by adapting those reactions to the current situation of the U.S. Complexity and volatility of performance data must carefully analyzed, as well. In general, it will take deeper studies of the capital markets to determine the adoption to the implementation of IFRS. This study will offer an insight on important information used to draft decisions about investing prospects and levels of confidence on different companies.

4.2.3 Professional Associations and the Accounting Profession

Accounting professionals will be required to obtain additional training in order to have a better understanding of IFRS and offer their clients a service of quality. In preparation for a possible conversion to IFRS, accounting firms and professionals are developing training programs to better prepare for the switch. In the U.S., public accounting firms have also offered significant publications related to IFRS, one of them being the *Towards Convergence Survey* used in this study. Both accounting professionals and public accounting firms have been active on the related IFRS conversion and convergence decision-making. Additionally, auditors, audit committees, tax professionals, and boards of directors must maintain communication during transition to IFRS. Changes including new and improved controls, specific-regulations change, performance metrics, and financial reporting need to be assessed by all related parties to generate shared expectations.

Particularly, the professional accounting community in general is concerned about the impacts that a principles-based accounting standards framework will bring in the ethical and legal liability areas. In order to avoid such problems, both accountants and professional associations will be required to follow a strict ethical process. Communication among associations, accountants, and management will be required for everyone to have the same expectations on control, development, and results. This is especially important in the auditing area. In the U.S, the American Institute of Certified Public Accountants (AICPA) is the professional association for all certified public accountants. The AICPA's international

counterpart is the International Federation of Accountants (IFAC)[15]. Their mission is to "provide members with the resources, information, and leadership that enable them to provide valuable services in the highest professional manner to benefit the public as well as employers and clients." (AICPA) In order to prepare for the potential switch to IFRS, the AICPA has been actively providing relevant information not only to their members but also to the public in general. They have also dynamically commented on the SEC's proposal for a *Roadmap* to implement IFRS. Without a doubt, higher quality and enhanced judgment will be required in order to avoid ethical and legal problems. The process will be simplified by understanding the magnitude of the impact of IFRS adoption, which is partially offered by this study.

4.2.4 Academicians

An educational plan for the transition to IFRS needs to be developed. These new education programs need to incorporate the global standards into the accounting curriculum at all levels. Expertise in international standards will be essential and early mastery of IFRS and will have a significant impact on an accountant's career. In order to overcome some of the cultural and interpretation barriers, education and preparation of both current and future professionals will be crucial. Main educational impacts include a necessary major change in the Uniform Certified Public Accountant Examination.[16] For future professionals, educational institutions,

[15] The International Federation of Accountants (IFAC) is a global association of national professional accountancy organizations, representing accountants of all sectors. As of February 2009, IFAC was comprised of 137 members and 20 associates in 122 countries and jurisdictions. IFAC develops international standards on ethics, auditing and assurance, education, and public sector accounting standards. It is overseen by the Public Interest Oversight Board (PIOB). The IFAC is based in New York, U.S.

[16] Also known as CPA Exam, it is the examination (granted at a state level) necessary to become a Certified Public Accountant in the United States. It is administered by the National Association of State Boards of Accountancy.

teacher, and researchers must provide the relevant information, while fostering awareness about the accounting profession transformation. Recognition of the changing accounting environment and coverage of the status of IFRS issues in both the U.S. and the global environment is the responsibility of all, both education providers and students. Professors and academicians in general, as well as publishers and test preparation agencies, among others will be able to utilize the results provided by this research as supplements as they develop and teach new curricula. Ultimately, current and future students and CPA examination candidates will be benefited by the contributions of this study, as well.

4.2.6 Standard Setters and Regulators

Without a doubt, the biggest policy changes brought by IFRS implementation or convergence are generated in the different regulatory and standard setter bodies, including the own U.S. government and the SEC, as they incorporate the new standards into its regulations. As mentioned before, the FASB and the IASB have been congruently working to close the gap between U.S. GAAP and IFRS. However, they are not certain about the results such action will have on their correspondent standard setting and regulatory sides. The institutional regulation and responsibilities post-IFRS implementation are still unclear. For instance, with the adoption of IFRS, FASB is susceptible to disappear or merge with the IASB.

After implementation of IFRS, national governments are still independent to regulate and to intervene in the capital markets in relation to financial reporting. (Brown and Tarca, 2001) Among the ethical and legal concerns of IFRS adoption, include the need to bring IASB in compliance with SOX. This includes supervising its independence just as SEC does with FASB.

Another issue involves the possibility of an increase in the number of lawsuits. Some believe that less explicit standards will not provide adequate protection for accounting firms and management against lawsuits. A principles-based set of standards might allow for a greater spectrum of interpretations and, therefore, of opposing views. Interestingly, that same argument supports the idea that such set of standards will decrease the amount of lawsuits by providing the opportunity to utilize the standards in the most efficient manner.

The SEC's function in enforcing federal security laws and regulating public companies exchanged in the U.S. will remain. Eventually, in adopting IFRS in the U.S, the SEC will be the main government body responsible for the implementation. The SEC requires not only high quality standards but also rigorous interpretation and application of the same (SEC, 2000). In adopting IFRS, the SEC will be looking forward to have an increasing global integration of financial markets, while maintaining independent domestic enforcement. The need to develop institutional mechanisms to encourage uniform compliance is urgent. In order to create an efficient infrastructure and regulatory system, the different regulatory and standard setting institutions (both domestic and foreign) need to assess the potential results of IFRS implementation. Related parties must be involved in the in the decision making process. Issues such as enforcement body, independence of the different boards and commissions, and overall country's legal differences must also be addressed.

4.3 Future Regulatory Landscape

In a world with great need for recovery after much fraud, financial scandals, and economic downturn, it is imperative to find a more transparent, more comparable common

ground. IFRS might be part of the answer for such troublesome issues. Yet, one of the remaining questions is which organization will be in charge of international setting and enforcement of accounting standards. Pressure from special interest groups has been evident. According to Hopwood, "world-wide pressures," especially from multinational companies, have triggered the adoption of IFRS by the international community. Standard setters and regulators should be required to balance their political power and comply with the needs of the related parties. (Brown and Tarca, 2001)

In the U.S., SEC Chairperson Mary Schapiro favors the postponement on IFRS implementation. The current global financial crisis is one of the reasons for that delay[17]. IFRS seems not to be a high priority for the administration currently. Ms Schapiro believes, among others, that the U.S. is not in the best situation to focus in such a change. It is also believed that the U.S. is not prepared to entrust the setting of standards and/or oversight to other institution. This shows that there is still concern about the political pressure, quality of the rules, and timeline for adoption. It appears that the *Roadmap* will be withdrawn and a different path will be taken.

Nevertheless, IFRS adoption does not change the role of the national regulation bodies. Based on experience from the EU, the enforcement and decisions tend to reflect the political views of the individual national governments, but also lead to a more consistent enforcement in their own jurisdictions. In an attempt to create a more even accountability and diversity among the different boards governing the different countries and organization financial frameworks, the

[17] In order to address the current global financial and economic crisis, the IASB and the FASB are working closely to develop a Financial Crisis Advisory Group. The main goal is to assess the different accounting issues surfacing as a result from the crisis.

IASB trustees have created the Monitoring Board of public authorities (January 2009). The Board is comprised of representatives from the SEC, the European Commission[18], and the International Organization of Securities Commission, among others. In any case, gradual convergence seems to be the right answer at this point. Even if IFRS is not adopted immediately, the impact will eventually be reflected on U.S. companies in a less drastic manner. Certainly, each country's response (not only U.S.) to harmonization initiatives and comparability demands of the global markets will be crucial in the future regulation and evolution of IFRS.

5. International Evidence

5.1 European Union

Almost all publicly listed European Union companies have been required to adopt IFRS as of 2005. The European Union, among other reasons, adopted IFRS to avoid the use of other foreign standards (e.g. U.S. GAAP) and to develop an independent set of standards and regulation. The conversion to IFRS by all the member states of the EU was done with the objectives of achieving a greater competitive position, lower cost of capital, and greater liquidity both in the European market and out of Europe. The European Parliament recognizes that the adoption of IFRS increased the European capital market's transparency and strengthened its competitive position. (European Parliament, 2008)

[18] The European Commission (EC) is comprised of 27 members (one for each EU country) and represents the interests of the European Union as a whole. It is independent of national governments. The EC drafts proposals for new European Union laws, which are then presented to the European Parliament and the Council.

In order to achieve proper and consistent application of IFRS, the European Union has developed a well-planned infrastructure comprised of several organizations. The European Commission's Accounting Regulatory Committee (ARC), which is composed of representatives of the EU member states, is responsible for providing an opinion on the European Commission (EC)[19] proposals to adopt or endorse an international accounting standard as proposed under Article 3 of the IAS Regulation, prior implementation. On the regulatory side, the Committee of European Securities Regulators (CESR)[20] is responsible for the regulation and enforcement in the area of securities in the EU. Another official observer and endorser for IFRS in the EU is the European Financial Reporting Advisory Group (EFRAG),[21] which as mentioned before, represents the interests of providers, users, and auditors of financial statements. In 2001, the European Securities Committee was created to provide consulting on legislative proposals on securities policy issues to the EC. Also in 2001, the Committee of European Securities Regulators was established with the goals of improving the coordination among European Securities Regulators, advising the EC on securities policy, and to fostering common and uniform implementation of EU securities law.

With the objective of working towards the consistent application of IFRS, the Roundtable for Consistent Application of IFRS was created in 2006 under the EC. The purpose of the Roundtable is to provide a forum for accounting experts to identify and discuss potential

[19] The EC is the executive branch of the European Union.

[20] The role of the CESR, established in June 200, is to improve coordination among European Securities Regulators and to act as an advisory group to promote a uniform interpretation of accounting rules. The CESR does not have the authority to mandate the use of IFRS.

[21] EFRAG was privately set up in 2001 to assist the European Commission in the endorsement of IFRS by providing advice on the technical quality of IFRS. EFRAG has recently been invited by the IASB to provide input to the IASB/FASB convergence work. EFRAG's mission is to proactively contribute to the development of new IASB standards from a European perspective, to provide technical advice as a basis for European endorsement of standards and to contribute to a consistent use of the standards in Europe.

accounting issues. Last, Federation des Experts Comptables Europeens (FEE) is a non-profit organization which represents the accounting profession in Europe. It consists of 43 professional institutes of accountants from 32 countries. Among others, FEE's goals include: (1) the promotion and advancement of the interests of accounting profession in Europe, (2) the enhancement and harmonization of the financial reporting in both public and private sector in Europe, (3) the promotion of cooperation among accounting professional associations, and (4) the identification of development in the accounting practice.

5.2 United Kingdom

Starting January 2005 and as noted by the European Union, all companies traded in the United Kingdom were allowed to use IFRS. The use of either IFRS or company law to prepare financial statements is required by the Companies Act 2006.[22] This Act was issued by the Parliament of the United Kingdom of Great Britain and Northern Ireland. The Financial Services Authority (FSA) regulates most financial markets and exchanges in the U.K. The FSA is a member of the Committee of European Securities Regulators (CESR). The CESR manages the enforcement of IFRS within the EU. This Committee publishes enforcement standards and recommendations for action by each EU national enforcer. In the U.K., the Financial Reporting Review Panel (FRRP) executes enforcement by, among others, reviewing the financial

[22] An Act to reform company law and restate the greater part of the enactments relating to companies; to make other provision relating to companies and other forms of business organization; to make provision about directors' disqualification, business names, auditors and actuaries; to amend Part 9 of the Enterprise Act 2002; and for connected purposes.

statements of listed companies for compliance with IFRS[23]. The London Stock Exchange (LSE)[24] required IFRS compliance beginning January 2007 by its companies listed under the Alternative Investment Market (AIM)[25]. The U.K. has traditionally followed a strict "true and fair" legal system. IFRS introduction caused concern among investors because it apparently dominated the true and fair requirement they had protected for so long. Their main concern was the possible deterioration in quality of financial reporting due to implementation of IFRS. In other to satisfy that requirement, it was financial statements' approval by companies' directors was made compulsory. Those financial statements must offer a true and fair view of the company.

Like in the U.S., there has been a commitment to converge U.K GAAP with IFRS. For years, the Accounting Standards Board (ASB)[26] has emulated the developments in international accounting by the IASB. However, there are still many differences in the areas of recognition, measurement, and disclosure requirements. Additionally, language interpretations and requirement differences added to the uncertainty during the transition. As backup, many companies have maintained both U.K. GAAP and IFRS for their accounting records. In 2004, just before IFRS was required, the ICAEW published a survey to determine how prepared U.K.

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[23] The Financial Reporting Review Panel (FRRP) was established in 1990 as part the Financial Reporting Council. The Panel seeks to ensure that the provision of financial information by public and large private companies complies with relevant accounting requirements. The information set out below documents the Panel's current objectives, membership, and procedures.

[24] The LSE is located in London and currently comprises more than 3,200 companies.

[25] The AIM is a sub-market of the LSE. Established in 1995, the AIM currently has more than 1,500 companies. The AIM provides more flexibility in regulation than other stock exchanges.

[26] The ASB has up to ten board members. The role of the ASB is to issue accounting standards in the United Kingdom. It took over the task of setting accounting standards from the Accounting Standards Committee (ASC) in 1990.

companies were for the transition. Only 81 percent of the respondents were aware of the EU's regulation to adopt IFRS and about one third were aware of the EU endorsement process. Last, only 39 percent of the participants thought their firm was ready for the IFRS adoption.

Though evidence in exact costs is minimal, according to the Institute of Chartered Accountants in England and Wales (ICAEW), the implementation costs of U.K. companies ranged between .5 million and 3.4 million Euros. On the other hand, recurring costs were estimated between .1 million and .6 million Euros. In proportion, costs were higher for smaller that for larger companies. Considerable expenses were incurred in connection with information system upgrades. In addition to being costly, the conversion process was slow too. One of the main reasons for that was the lack of companies' management and of auditors on practical IFRS expertise. Still, both auditors and larger companies invested greatly in training for their staff. Smaller companies' investment on training was limited.

U.K. GAAP and IFRS still have several technical differences: (1) IFRS requires the estimation of residual values of property, plant, and equipment at the end of each period at least, while U.K. GAAP only requires it at time of purchase. This difference did not create significant impact for most companies. (2) In the intangible assets area, companies were required to switch from amortization of goodwill to an impairment-only approach under IFRS. (3) IFRS required the analysis of groups with similar credit risk rather than using a flat percentage of bad debts for impairment of financial assets. (4) In the financial instruments area, comprehensive recognition and measurement standards were introduced in the U.K. by IFRS. The identification and analysis of embedded derivatives was a new concept for U.K. companies too. The execution of this requirement required a significant amount of resources. (5) IFRS requires a deferred tax provision in almost all cases when there is a difference between the book value and tax base not

only when there is an obligation to pay tax. As a result, deferred tax balances increased. (6) IFRS requires operating leases to be spread over the lease term, while the U.K. GAAP requires them to be spread over the period until the next rent review

In 2006, the FRRP published a report on implementation of IFRS in the U.K. It identified area for improvement. Most areas were related to the need of improvement in disclosures and the judgment applied to those interpretations. In their report on implementation to the European Commission, the ICAEW concluded that (1) financial statements were easier to compare across countries, competitor, and industries though IFRS; and (2) though implementation was challenging, no considerable loss of confidence was apparent. The success of IFRS implementation, according to the ICAEW, was more evident in measurement rather than in disclosure in financial statements.

Adopting or converging to IFRS in the U.K. was a challenge that required efforts from all the affected parties. The transition seems successful, though. It achieved comparability of financial statements in the U.K. with those of European Union companies and with those from other countries implementing IFRS. To date, no significant problems are identified. However, improvement and enforcement is continuously monitored. Among some of the areas are constantly addressed include: understanding all IASB accounting standards, principles, scope, and shortcomings; and taking IFRS into account for other related standards and regulations.

Overall, according to United Nations' Review on Implementation Issues (2008), key lessons learned after IFRS implementation in the United Kingdom include (1) early transition is important, (2) information systems should be upgraded, (3) staff training is crucial, (4) corporate governance is essential as board of directors must be engaged in the process, (5) other business

issues, such as tax and performance indicators, must closely be considered, (6) communication with stakeholders is essential, and (7) auditors need to be effectively educated in IFRS. There is still debate about the outlook of IFRS in the U.K. However, it is probable that IFRS will become the single rule for the accounting reporting in the United Kingdom in the future.

5.3 Australia

The Australian Securities and Investment Commission (ASIC)[27] monitors and enforces the compliance of Australian firms listed in the Australian Stock Exchange (ASX) with accounting standards. The ASIC is a very active body when it comes to its functions. For instance, each company listed under the ASX is reviewed every four years. For those companies that appear risky, observation is continuous. The ASIC shows its strict authority by enforcing its right to take a company to court if it deems necessary. This includes companies that do not agree with its rulings. In 2003, the ASIC proposed the creation of the Australian Financial Reporting Panel (FRP)[28]. The FRP was established in 2004 under the Corporate Law and Economic Reform Program Act[29]. On the standard-setting side, the Australian Accounting Standards Board (AASB)[30] is responsible for developing high quality accounting standards to ensure the

[27] Created in 1998, the ASIC succeeded the Australian Securities Commission (ASC). The ASC was the Australian equivalent of the United States' Securities and Exchange Commission (SEC).

[28] The FRP complements ASIC's activities by resolving disputes related to accounting treatments in their financial reports. The FRP purpose is to deal with disputes between the ASIC and companies before cases are taken to court.

[29] The Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Act 2004 replaced the self-regulation of auditors by the professional bodies with a system of supervision by the Financial Reporting Council and the ASIC. The Act also introduced changes to promote auditor independence, including restrictions on auditors being employed by an audit client, prohibition of some non-audit services for an audit client, and five-year rotation of audit lead and review.

[30] Based in Melbourne, Australia, the AASB is an independent accounting standard- setter. The AASB is comprised of 13 members.

transparency and comparability of information in financial statements. Importantly, the Australian Financial Reporting Council (FRC) enforces oversight of the process for setting accounting and auditing standards in Australia[31]. The FRC also monitors the effectiveness of auditor independence requirement and advices on such matters. It comprises key stakeholders from the business community, the professional accounting bodies, government, and regulatory agencies.

The FRC made official its support of IFRS adoption by 2005 in July 2002. As a result, the AASB started issuing IFRS equivalent standards on July 2004. The goal was to converge both ASB and IFRS. It was evident as the AASB adopted not only the content, but also the wording of the international standards. The international accounting standards were changed to accommodate the language differences. As well, modifications were made where additional requirements and disclosures were required. The AASB's adoption decision was based on the IASB's announcement of a stable platform of new and revised standards for application from 1 January 2005 (AASB 2004). Currently, the AASB continues to work to maintain consistency with the IASB's standards in order to meet their objectives of transparency and comparability. After IFRS implementation, technical issues identified by the AASB in relation to listed companies are generally submitted for consideration by the IAB or the IFRIC. Non-listed companies' issues are handled domestically. Like in the U.S., the AASB requests formal comment letters and other input from the public on the AASB's own proposals and in relation to various consultative documents issued by the IASB. Australian stakeholders can advise the AASB on issues considered by the AASB or an international standard-setter. Though the AASB

[31] The Australian Financial Reporting Council (FRC) is a statutory body established under the Australian Securities and Investments Commission Act 2001, as amended by the Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Act 2004.

is still the official standard-setter, its pronouncements applicable to listed companies are consistent with IFRS.

The decision by the FRC in June 2002 to adopt IFRS was heavily criticized for lacking the necessary consultation with industry and professional bodies. In 2006, PricewaterhouseCoopers reported that many of its clients were concerned that annual reports had become too complex and costly to prepare since the adoption of IFRS. The estimated balance sheet effect of IFRS adoption in Australia amounted to $17 billion in 2005 (Chand and Cummings, 2008). Additionally, both small and medium-sized companies have complained of the focus of IFRS on only listed companies. In conclusion, the Australian experience suggests that IFRS adoption has been a more challenging task than initially anticipated.

6. Research Methodology and Results

6.*1 Towards Convergence: A Survey of IFRS to U.S. GAAP Differences*

The *E & Y Survey* comprises 130 of the largest companies in the world. From those, 112 companies are from the European Union and 18 are IFRS-user companies that filed U.S. GAAP reconciliation with the SEC. The *E & Y Survey* provides an analysis of IFRS to U.S. GAAP differences reported by companies, which prepare financial statements under IFRS with reconciliations to U.S. GAAP. The survey is organized in four parts: (1) an analysis of the IFRS to U.S. GAAP differences reported, (2) a compendium of extracts from the Form 20-F filings illustrating reported differences between IFRS and U.S. GAAP, (3) a discussion of the IFRS first-time adoption rules; and (4) an analysis if the FRS to U.S. GAAP differences reported for seven industry sectors. The survey also includes 102 companies that are first-time adopters.

These companies reported 397 reconciling items due to applying the exemptions from full retrospective application of IFRS provided by IFSR 1 *First-time Adoption of International Financial Reporting Standards*. The analysis is based on Form 20-F annual report filings of fiscal years ended December 31, 2005 and March 31, 2006 and filed with the SEC before July 15, 2006.

The *E & Y Survey* identified almost 200 unique IFRS to U.S. GAAP differences for a combined total of over 1,900 reconciling items. The survey shows how those differences affect the IFRS or the companies' national GAAP net income/loss when reconciling with U.S. GAAP. Therefore, it shows the percentage increase or decrease in profit from IFRS or companies' national GAAPs to U.S. GAAP under the Form 20-F. These almost 200 differences were allocated to 28 areas of accounting. Some of these categories have been combined to align the description of differences with the quantification of those differences disclosed in the Form 20-F reconciliation. Differences between IFRS and U.S. GAAP may arise from differences in recognition, measurement, disclosure requirements, and local fiscal or other regulatory requirements. For instance, 225 differences relating to taxation were reported by 126 of the 130 companies surveyed, despite the supposedly similar "full provision" approaches to the accounting for taxation under IFRS and U.S. GAAP.

6.1.1Overall Differences Discussed in the Towards Convergence Survey

The almost 200 individual differences found through the survey are likely to be eliminated due to the joint work by the FASB and the IASB to converge U.S. GAAP and IFRS through their conversion projects. Some of the differences presented in the survey might not

exist currently. Following is a summary of the overall results offered by the *E & Y Survey* for each accounting area.

The majority of the IFRS to U.S. GAAP variations reported in the shared-based payments area are due to measurement differences. Differences under this accounting area have been addressed by the FASB and the IASB. FAS 123 (R) *Share-based Payment* eliminated some of those differences starting fiscal year beginning after June 15, 2005. Of the total differences between IFRS and U.S. GAAP reported, 13 percent corresponded to differences in the business combinations area amounting to 258 differences. Many of the differences between IFRS and U.S. GAAP under this area were eliminated by the revision of FAS 141 (R) *Business Combinations* in 2007. There are certain differences in the application of accounting standards under the taxation area that result in differing results. The *E & Y Survey* found 99 individual differences related to this accounting area. Together, the FASB and the IASB are working in a joint short-term convergence project to eliminate the differences between the IAS 12 *Income Taxes* and the FAS 109 *Accounting for Income Taxes*. Under the borrowing costs area, 43 of the 130 companies reported a difference relating to the capitalization of borrowing costs. Currently, the FASB and the IASB are working jointly to eliminate most of the differences related to borrowing costs. For instance, the IASB revised IAS 23 *Borrowing Costs* to eliminate the expensing option. This standard will be effective for annual periods beginning January 2009. Of the companies in the survey, 20 companies reported 30 differences related to joint ventures.

The main differences in those areas is related to the application of benchmarks of proportionate consolidation resulting from using the equity method (which is the only method allowed) under IFRS. In order to reduce the differences, the IASB has revised its IAS 131 *Joint Arrangements* (previously Financial Reporting of Interests in Joint Ventures) to require the use

of the equity method for accounting for interests in jointly controlled entities. The standard is effective beginning January 2009. Under the pensions and post-retirement area, 101companies in the survey reported 311. The FASB and the IASB are currently working on converging their standards in this area. The first step taken by the FASB was to issue FAS 158 *Employers' Accounting for Defined Benefit Pension and Other Postretirement Benefit Plans in 2006.* FAS158 has removed many of the reported differences, including the requirement under U.S. GAAP to recognize a minimum liability at least equal to the unfunded accumulated benefit obligation. Continuing the convergence process, the FASB also issued FASB Staff Position[32] FAS 132(R)-1 *Employers' Disclosures About Postretirement Benefit Plan Assets* in December 2008. The IASB plans to issue a final standard for the first phase of its project in 2010.

6.2 Towards Convergence Survey Results by Industry

6.2.1 Financial Services

The companies in the Financial Services sector include those in commercial and retail banking, insurance, and investment management. There are 18 Financial Services companies in the *E & Y Survey*, 10 of them headquartered in the U.K. From this group, 16 companies are first-time adopters of IFRS. The 18 companies reported 313 individual differences representing 82 unique differences, which were divided in 18 accounting areas.

[32] February 2003, the FASB staff began issuing future application guidance (like that found in Staff Implementation Guides and Staff Announcements) through FASB Staff Positions (FSP). The FASB staff publishes a draft of a proposed FSP to Board members for their review. If most of the FASB members do not object to the proposed FSP, it is posted on the FASB Web site for comment for a period of 30 days.

According to the results of the *E & Y Survey*, two of the most significant differences relate to recognition and measurement of financial instruments and derivatives and hedge accounting. Most of the differences in the Financial Services area are industry-specific. Some of those differences are related to consolidation of special purpose entities, real estate and investment property valuation, subsequent recoveries of impaired-debt securities, venture capital and private equity investments and allowances for loan losses, foreign exchange differences on available for sale securities, the classification of available for sale investments, designation of financial assets and liabilities as carried at fair value through profit/loss, accounting for non-marketable securities, loan origination fees/costs, and insurance contract deferred acquisition costs. The range of total differences was broad, five to 26 individual differences. Out of the 18 companies, five had an overall profit increase between 1.5 percent and 59 percent. On the other hand, 13 companies had an overall profit decrease between 2.5 percent and 60.2 percent.

Most of the IFRS-U.S. GAAP differences found by the *E & Y Survey* in the financial services area are related to: (1) consolidated financial statements, (2) investment property, (3) impairment, and (4) financial instruments recognition and measurement. First, under IFRS, a special purpose entity should be consolidated by the company that is deemed to control it. Under U.S. GAAP, a special purpose, or variable interest, entity generally is consolidated by the interest holder that is exposed to the majority of the entity's expected losses or residual returns. Related to the consolidation of special purpose entities, eight of the 18 companies in this sector reported differences. Second, under IFRS, property held for investment purposes generally is carried at fair value with changes in fair value reported in profit or loss. U.S. GAAP does not permit revaluations of either type of property held; instead, such properties generally are carried at cost less accumulated depreciation. Third, under certain circumstances, IFRS permits the

reversal of previously recognized impairment losses for debt securities. U.S. GAAP generally does not permit reversal of any previously recognized impairment losses. The timing of recognition of an impairment loss may also be different between U.S. GAAP and IFRS.

Finally, the financial instruments category differences is composed of several disparities in the following areas: (1) venture capital and private equity investments, (2) allowance for loan losses, (3) foreign exchange differences on available for sale investments, (4) classification differences for investments available for sale, (5) fair value option, (6) non-marketable securities loan origination fees and costs, and (7) insurance contracts discretionary participation and deferred acquisition costs.

Under IFRS, venture capital organizations and similar financial institutions are not required to apply the IAS 28 *Investments in Associates* equity method of accounting for investments over which they have significant influence. In accordance with the accounting practices that exist in U.S. GAAP for investment companies, such investments generally are carried at fair value with changes in the fair value recognized in profit or loss. The detailed application of IFRS and U.S. GAAP methodologies under allowance for loan losses can produce reconciliation differences. Under IFRS, changes in the fair value of available-for-sale investments resulting from changes in foreign exchange rates are recognized in profit or loss. Under U.S. GAAP, such amounts are recognized in shareholders' equity and recognition in the income statement occurs when the security is disposed. Differences in the classification and the fundamental definitions of investments available for sale may generate disparities between IFRS and U.S. GAAP also.

Under IFRS, financial assets and financial liabilities may be designated at fair value through profit or loss at inception if they meet certain criteria. U.S. GAAP currently does not provide this option. Under U.S. GAAP, such investments generally are outside of the scope of FAS 115 *Accounting for Certain Investments in Debt and Equity Securities* as sales prices are not currently available on a recognized securities exchange and consequently, they do not have readily determinable fair values. Under IFRS, non-marketable equity securities generally are carried at fair value (classified as available for sale) unless the fair value cannot be reliably measured. Under IFRS, certain fees and costs that are incremental and directly attributable to the origination of a loan are deferred and amortized over the life of the loan as part of the effective interest rate yield. U.S. GAAP has similar requirements for the deferral of fees but only restricts the deferral to those costs that are directly attributable to the origination of a loan.

6.2.2 Pharmaceutical

This industry comprises companies engaged in research and development, manufacturing and marketing of pharmaceutical, biotechnology and consumer health-related products. There are 13 pharmaceutical companies in the *E & Y Survey*, 11 of those are EU-incorporated. Eight of those are first-time adopters of IFRS. These 13 companies had 195 individual differences in total representing 71 unique differences, which were divided in 19 accounting areas. The range of total differences was broad, seven to 23 individual differences. Out of the 13 companies, two of them showed an overall increase in profit (decrease in loss) between 3.4 percent and 24.8 percent. On the other hand, eleven companies showed an overall decrease in profit between 2.4 percent and 131.2 percent.

Other differences are related to accounting for research and development projects and accounting for multiple element arrangements. According to the *E & Y Survey*, (1) business combinations, (2) intangible assets, and (3) revenue recognition differences between IFRS and U.S. GAAP produced most of the significant areas of differences in this industry. First, under IFRS 3 *Business Combinations*, an acquirer recognizes separately an intangible asset for in-process research and development of the acquiree at the acquisition date only if it meets the definition of an intangible asset in IAS 38 *Intangible Assets* and its fair value can be measured reliably. Under U.S. GAAP, costs assigned to intangible assets for in-process research and development acquired in business combinations are initially recognized and measured in accordance with FAS 141 *Business combinations*. In-process research and development projects acquired, other than as part of a business combination, generally are capitalized under IFRS if the cost of acquiring the projects meets the definition of an intangible asset under IAS 38 *Intangible Assets*. Second, under U.S. GAAP, the costs of acquired research and development projects, or assets used in research and development projects, that have no alternative future use generally are charged to expense as incurred. Last, under IFRS, accounting for revenue follows the general principles provided by IAS 18 *Revenue*. Under U.S. GAAP, there is revenue recognition guidance for specific types of transactions. Other differences relate to pension and post-retirement benefits, and share-based payments.

6.2.3 Telecommunications

Companies offering telecommunications-related services represent this industry. There are 23 telecommunication companies in the *E & Y Survey*, 18 of those were first-time adopters of

IFRS. The range of total differences was broad, three to 27 individual differences. Overall, 339 individual differences representing 86 unique differences divided in 22 accounting areas were found in these 23 companies. Out of those, eight companies had an overall increase in profit between 0.1 percent and 145.1 percent. On the other hand, 15 companies had an overall decrease in profit between 0.1 percent and 128.2 percent.

According to the *E & Y Survey*, most differences were related to (1) revenue recognition, (2) development cost, (3) capitalization of interest, and (4) business combinations, pensions and postretirement benefits and derivatives and hedge accounting. First, the survey identified reconciling items related to revenue recognition related to up-front fees and to multiple-element arrangements. Under IFRS, there is no specific guidance relating to up-front fees, so the general IAS 18 *Revenue* rules apply. Under U.S. GAAP, SAB 104 *Revenue Recognition* requires that up-front fees, even if nonrefundable, are earned as the products and/or services are delivered and/or performed over the term of the arrangement or the expected period of performance.

Second, under IFRS, companies may allocate the cash consideration received from the customer between equipment and service elements based on their relative fair value. Under U.S. GAAP, the amount allocated to the equipment generally is limited to the amount that is not contingent upon delivery of additional items or meeting other specific performance conditions. Second, under IAS 38 *Intangible Assets*, development costs should be capitalized and amortized if they meet the specific definition and criteria for capitalization as an intangible asset. Under U.S. GAAP, research and development costs generally should be expensed as incurred in accordance with FAS 2 *Accounting for Research and Development Costs*.

Third, under IAS 23 *Capitalization of Borrowing Costs*, entities have the choice of applying the benchmark treatment, which is to expense all borrowing costs as incurred, or the allowed alternative treatment, which is to capitalize borrowing costs on qualifying assets. There is no such choice under U.S. GAAP since FAS 34 *Capitalization of Interest Cost* makes the capitalization of interest compulsory for certain qualifying assets that require a period of time to get them ready for their intended use.

Last, under U.S. GAAP, FAS 141 *Business Combinations* and FAS 142 *Goodwill and Other Intangible Assets* generally require that measurement of an intangible asset is based on its intended use. Under IFRS, IAS 38 *Intangible Assets* does not require intended use to be taken into account. Other differences relate to customer acquisition costs, sales incentives, trademark license intangibles, capitalization of start-up costs, and capitalization of borrowing costs.

6.2.4 Extractive Industries

This industry includes companies that engage in a wide range of natural resource extraction activities. These companies are involved in mining, excavation of commercial construction materials, as well as exploration, production, refining, and marketing of oil and natural gas. Out of the 130 companies in the *E & Y Survey*, 15 of them were in this industry, 11 of those are incorporated in the EU. From those, 10 companies were first-time adopters of IFRS. The range of total differences was broad, four to 26 individual differences. Companies in the extractive industries sector reported 188 differences representing 71 unique differences, which were divided among 23 accounting areas. Overall, 15 companies had an increase in profit

(decrease in loss) between 0.1 percent and 206.4 percent. On the other hand, eight companies had an overall decrease in profit between 1.2 percent and 13.8 percent.

According to the *E & Y Survey*, many of the differences are related to (1) inventory, (2)provisions and contingencies, (3) capitalization of exploration and development costs, (4) mining and construction materials companies specifically, and (5) accounting for stripping costs. First, IAS 2 *Inventories* requires companies to value inventory at the lower of cost and net realizable value. Under U.S. GAAP, inventories generally should be measured at the lower of cost and market value. Second, under IFRS, the general principles of IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* should be followed, which require that a provision is recognized only where there is a legal or constructive obligation to incur costs. There are specific rules under U.S. GAAP for accounting for decommissioning costs that prohibit accounting for estimated dismantlement, restoration, and abandonment costs by a cost accumulation approach. Third, there is no accounting standard under IFRS that specifically addresses the treatment of exploration and development costs for oil and gas companies. Under U.S. GAAP, costs relating to drilling an exploratory or exploratory-type stratigraphic well may be capitalized pending determination of whether the well has found proved reserves.

Fourth, there is no accounting standard in IFRS or U.S. GAAP that specifically addresses the treatment of exploration costs. Therefore, under IFRS, companies generally follow current mining industry practice, which is to carry forward the exploration, and evaluation expenditure on a project after it has reached a stage where there is a high degree of confidence in its viability. Under U.S. GAAP, expenditure generally is not allowed to be carried forward unless the viability of the project is supported by a final feasibility study. In addition, U.S. GAAP generally does not allow impairment to be reversed. Under IFRS, there is no specific guidance

for accounting for mineral rights by mining and construction materials companies. Under U.S. GAAP, there is specific guidance for accounting for mineral rights. In addition, there is no specific guidance for valuation of mineral reserves under IFRS. Under IFRS, ore stockpiles are carried at the lower of cost and net realizable value. Reductions in the carrying values from cost to net realizable value are recognized as an expense in the period incurred as a write-down of inventory. Under U.S. GAAP, ore stockpiles generally should be carried at the lower of cost and market. Market means current replacement cost, except that market should not exceed net realizable value.

Last, there is currently no specific accounting standard under IFRS that addresses accounting for stripping costs. The general industry practice is to capitalize pre-production stripping costs. Under U.S. GAAP, stripping costs incurred during the production phase of a mine are variable production costs that should be included in the cost of the inventory produced during the period that stripping costs are incurred.

6.3 Industry Descriptions and Sample

The following are brief descriptions of the four industries we have worked in the study: financial services, pharmaceuticals, telecommunications, and extractive industries. The descriptions of the 2007 NAICS[33] are taken from the U.S. Census Bureau database.

[33] The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

The Finance and Insurance sector (NAICS 52) comprises establishments primarily engaged in financial transactions and/or in facilitating financial transactions. Three principal types of activities are identified as (1) raising funds by taking deposits and/or issuing securities and, in the process, incurring liabilities; (2) Pooling of risk by underwriting insurance and annuities; and (3) providing specialized services facilitating or supporting financial intermediation, insurance, and employee benefit programs. The Finance and Insurance sector has been defined to encompass establishments primarily engaged in financial transactions; that is, transactions involving the creation, liquidation, change in ownership of financial assets; or in facilitating financial transactions. Most of the Finance and Insurance subsectors contain one or more industry groups of (1) intermediaries with similar patterns of obtaining and using funds and (2) establishments engaged in activities that facilitate, or are otherwise related to, that type of financial or insurance intermediation.

The Pharmaceutical and Medicine Manufacturing (NAICS 32541) industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing biological and medicinal products; (2) processing drugs and herbs; (3) isolating active medicinal principals from botanical drugs and herbs; and (4) manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions. This U.S. industry comprises establishments primarily engaged in (1) manufacturing uncompounded medicinal chemicals and their derivatives and/or (2) grading, grinding, and milling uncompounded botanicals. This U.S. industry comprises establishments primarily engaged in manufacturing in-vitro diagnostic substances, such as chemical, biological, or radioactive substances.

Industries in the Telecommunications (NAICS 517) subsector group establishments that provide telecommunications and the services related to that activity. The Telecommunications subsector is primarily engaged in operating, and/or providing access to facilities for the transmission of voice, data, text, sound, and video.

The Mining, Quarrying, and Oil and Gas Extraction sector (NAICS 21) comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas. This sector distinguishes two basic activities: mine operation and mining support activities. Mine operation includes establishments operating mines, quarries, or oil and gas wells on their own account or for others on a contract or fee basis. Mining support activities include establishments that perform exploration and/or other mining services on a contract or fee basis. Companies in this sector are grouped and classified according to the natural resource mined or to be mined. Industries include establishments that develop the mine site, extract the natural resources, and/or those that beneficiate the mineral mined.

6.4 Research Method and Results

All variables used in my analyses are defined in Appendix A of the paper. From the seven industries presented by the *Towards Convergence Survey*, I focus only on four: financial services, pharmaceutical, telecommunications, and extractive industries. After analyzing the data provided by the *E & Y Survey* for each of those industries, financial information for the individual non-U.S. companies used by the survey were gathered. Due to several reasons, including withdrawal of companies from U.S. stock exchanges, mergers, and non-existence,

financial information on several companies was not obtained. Of the 18 companies in the financial services sector, 14 were found. From the 13 pharmaceutical companies, information for seven of them was acquired. From the 23 companies utilized under the *E & Y Survey* under the telecommunications sector, only 13 were found Last, from the 14 companies sunder the extractive industries, information on 13 was obtained. In total, 68 companies from the *Survey* are utilized to determine the impact of reconciliation between IFRS and U.S. GAAP. In the following sections, this impact will be compared to the effect resulting from the U.S. sample. The same period (fiscal year ended December 31, 2005 or March 15, 2006) is used by the *E & Y Survey* is utilized in this study to gather financial information for both non-U.S. and U.S. firms.

After obtaining descriptive data for the non-U.S. sample, size and performance metrics were obtained for each industry. Table 1 shows those metrics along with the statistical measurements defined in the prior subsection.

Table 2 shows the impact of the reconciliation between U.S. GAAP and IFRS in millions of dollars for the non-U.S. sample. To do this, I select a number of several specific accounting areas where significant differences are likely to emerge. Among others, these accounting areas include business combinations, capitalization of borrowing, financial instruments, taxation, share-based payments, and pensions. For each industry, I determine the net income under U.S. GAAP. Percentage changes for each accounting area after reconciliation from U.S. GAAP to IFRS is calculated, as well. These changes are then added to the net income under U.S. GAAP to obtain the total net income under IFRS. For each accounting area, under each industry, I obtain statistical metrics to further analyze the impact of the reconciliation. All the sectors, except the extractive industries, have a positive increase in net income after reconciliation U.S. GAAP to IFRS. For instance, on average, pharmaceutical companies have an increase in net

income equal to approximately 34 percent under IFRS. On the other hand, extractive industries show a decrease in net income of about 18 percent under IFRS.

Across all the industries, differences in business combinations, taxation, and pension and post-retirement benefits are evident. On average, the pharmaceutical industry is positively impacted with an increase in net income of almost 17 percent, while the extractive industry shows a decrease in net income equal to 0.30 percent under the business combinations accounting area. All industries, with the exception of the telecommunications sector, are negatively impacted under the taxation area. The financial services industry shows a significant positive impact, compared to the other three industries, under the pensions and post-retirement benefits accounting area.

After determining the impact of the reconciliation between U.S. GAAP and IFRS of financial statements (income statement specifically) of the *Towards Convergence Survey* sample, a sample of U.S. companies is gathered. Using SAS, a sample of the largest companies by market capitalization on each industry (financial services, pharmaceuticals, telecommunications, and extractives) is collected. The sample of U.S. companies is considerably larger than the non-U.S. utilized earlier. Information is collected for 1,617 companies under the financial services industry, 878 under pharmaceuticals, 1,130 for telecommunications, and 889 for extractives. Table 3 shows the descriptive statistics gathered for the U.S sample. Identical characteristics are previously determined for the Ernst and Young non-U.S. sample.

Different from the reconciliation obtained for the non-U.S. sample, the impact of the reconciliation for the U.S. sample is expressed in billions of U.S. dollars. Similar to the U.S. sample, business combinations, taxation, and pension and post-retirement accounting areas are

the most significantly impacted on average. Under business combinations, all industries (except extractives) show a positive impact in net income. Changes in taxation affect negatively net income of all industries (except telecommunications). The pensions and post-retirement accounting area is impacted for all the industries. Significantly, the financial services' net income is the most positively impacted from all the industries. Overall, with the exception of the extractive industries, all sectors show a positive impact on net income after reconciliation from U.S. GAAP to IFRS. However, the only significant impact is observed in the pharmaceutical industry with an increase of net income of 122 percent from U.S. GAAP to IFRS. This amounts to almost 114 billion dollars. The high increase is considerably due to the impact in the intangible assets accounting area. The extractive industries shows a decrease in net income of almost 6 percent when reconciliation from U.S. GAAP to IFRS. This amounts to almost 24 billion dollars.

6.5 Conclusion

Overall, my paper provides information to the overall international accounting literature. Accounting regulators will be interested in this research because it will provide an extra insight on what the potential effects of IFRS will be. Accounting researchers will be interested because it will open a door to more extensive investigation on the area. Analysts, investors, educators, students, companies' competitors, supplier, and consumer will be interested on the direct and indirect results of my research because IFRS adoption by the U.S. will influence them directly or indirectly. Through my research, these parties will be able to observe the possible outcomes and use it as a guide to make their desired assessments of the financial and economic information.

After an extensive theoretical and empirical research, I determine that the potential impact of IFRS adoption in the U.S. would not have a significantly negative effect on companies in the financial services, pharmaceutical, and telecommunications industries. Even though the implementation of IFRS in the extractive industries would have a negative impact, it is not highly significant. Although not representative of the entire economy, the impacts on these industries demonstrate that implementing IFRS in the U.S. would have a somewhat significant effect on net income. Many of the differences observed may not be as significant now as they were in 2006; however, the results of this study serve as an antecedent to what could potentially happen if the U.S. adopts IFRS.

For years, the FASB and the IASB have worked together to converge U.S. GAAP and IFRS. Methodically and gradually, they have issued and published amendments to their standards with the goal of creating a nearly identical set of standards. Differences remain, even in those areas where work has been done already. In an attempt to accelerate the assimilation process, the SEC issued a *Roadmap for Conversion* in 2008. Among others objectives of the *Roadmap*, implementation of IFRS by the largest market capitalization companies in certain industries is suggested. For months, the R*oadmap* maintained a tall momentum. Everyone, from company's management to accounting firms, suddenly recognized the importance of learning about IFRS. At that moment, implementation seemed inevitable. However, after serious changes in the U.S., including an appalling economic and financial crisis, and a change in government administration; conversion to IFRS is not a high priority. According to the comments received by the SEC on their *Roadmap*, most of the commentators do not believe conversion is appropriate at this moment. Critics of the *Roadmap* suggest a continuous

convergence between U.S. GAAP and IFRS not only because it is not the appropriate time, but also because cost would be decreased and the impact would be attenuated.

IFRS proponents claim that implementing IFRS will significantly increase comparability and consistency among companies and across borders. Based on the IFRS implementation in the United Kingdom, a higher comparability was achieved after a challenging process. However, after looking at the evidence, I agree that the national identity will remain strong in the financial reporting of those companies. For instance, after IFRS was required in the European Union in 2005, individual countries kept their own distinguishing characteristics. The core accounting standards are similar, but the related judgment and presentation are still different. In my opinion, in order to achieve a complete comparability, it would be necessary to modify the fiscal and governmental policy of countries around the world. Obviously, that is unfeasible.

This study shows that the impact of IFRS could potentially be positive for many U.S. companies. However, the sample of industries is considerably limited. This research does not show the overall impact. Out of the about 34 industries that could adopt IFRS if the *Roadmap* is approved, this research only focus on four. Additionally, this study does not consider the specific effects of first-time IFRS adopters, which could potentially be impacted in a different way. For instance, conversion to IFRS could show earnings volatility for first-time adopters as impacts on profit will be different between IFRS and U.S. GAAP. This would be evident on the retroactive restatement of certain historical periods required by IFRS during the first year of implementation.

After analyzing past literature, experiences in other countries, reports, and journal articles; opposed sides are still apparent. In conclusion, I agree with the proponents of

convergence over conversion. A systematic approach rather than a radical change will, in my opinion, result in the high-quality standards and the comparability seek out by regulators and standard setters across the globe. Not only will a conversion approach give more time to companies to understand, implement training, and adapt to the changes; but it will also be gentle with a global capital system that has been harmed greatly during the last decade.

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APPENDIX

A. Results (Tables)

TABLE 1

Firms in the Enrst & Young Towards Convergence Survey
Descriptive Statistics
In millions of US$

Variable	N*	Mean	Standard Deviation	Minimum	25% Percentile	Median	75% Percentile	Maximum
Panel A: Financial firms								
Size								
Total Assets	14	1,029,035	727,107	2,028	415,459	1,030,308	1,706,787	1,965,159
Market Value of Equity	14	74,492	55,410	5,995	27,898	84,845	95,020	209,633
Book Value of Equity	14	44,823	31,416	1,933	21,848	42,257	66,207	110,902
Market to Book Ratio	14	2.27	1.54	0.08	1.27	2.19	2.56	6.81
Leverage	14	21%	15%	1%	13%	19%	34%	46%
Performance								
Sales	14	67,280	43,375	600	38,040	64,793	105,603	130,145
Net Income	14	7,347	4,451	490	3,681	7,832	10,051	15,789
ROA	14	3%	8%	0%	1%	1%	1%	30%
ROE	14	18%	6%	10%	12%	17%	23%	31%
Panel B: Pharmaceutical firms								
Size								
Total Assets	7	37,429	38,349	249	3,231	29,932	68,008	102,624
Market Value of Equity	7	75,142	62,714	159	9,865	82,052	134,882	147,798
Book Value of Equity	7	20,478	22,419	167	2,174	15,304	41,294	60,178
Market to Book Ratio	7	4.14	2.28	0.95	2.07	4.54	5.36	7.82
Leverage	7	10%	7%	3%	4%	9%	18%	21%
Performance								
Sales	7	22,549	18,984	119	2,779	26,999	38,917	46,090
Net Income	7	4,421	3,924	3	745	5,287	7,175	10,555
ROA	7	12%	7%	1%	5%	12%	20%	21%
ROE	7	23%	19%	2%	9%	18%	39%	56%
Panel C: Telecommunications								
Size								
Total Assets	13	73,706	77,902	83	18,702	50,903	136,155	252,922
Market Value of Equity	13	54,770	50,831	58	14,340	44,027	79,338	181,620
Book Value of Equity	13	31,831	50,008	71	4,099	17,690	26,395	187,590
Market to Book Ratio	13	2.46	1.46	0.81	1.44	1.73	3.61	5.06
Leverage	13	24%	20%	0%	7%	30%	41%	54%
Performance								
Sales	13	35,443	29,065	94	8,371	26,920	64,470	82,619
Net Income	13	1,656	5,437	(14,242)	73	3,440	4,177	8,226
ROA	13	1%	17%	-50%	1%	4%	7%	19%
ROE	13	12%	27%	-59%	3%	13%	28%	47%
Panel D: Extractive firms								
Size								
Total Assets	13	77,916	81,760	512	3,006	59,652	116,545	235,276
Market Value of Equity	13	92,066	94,184	1,613	3,988	69,560	162,868	252,026
Book Value of Equity	13	36,595	38,106	341	2,434	23,810	54,370	114,945
Market to Book Ratio	13	2.80	0.95	1.64	2.02	2.55	3.31	4.73
Leverage	13	16%	9%	2%	10%	13%	23%	33%
Performance								
Sales	13	92,818	106,645	258	1,755	72,689	137,287	318,845
Net Income	13	8,734	9,109	48	304	6,908	15,530	25,442
ROA	13	10%	5%	4%	9%	10%	11%	22%
ROE	13	20%	9%	7%	15%	19%	23%	41%

* N= number of companies in the non-U.S. sample

TABLE 2

Impact of IFRS adoption on E&Y's Towards Convergece Survey Sample

U.S. GAAP vs. IFRS Net Income Reconciliation

In percentage change

Industry	NET INCOME under U.S. GAAP	Business combinations	Intangible assets	Investment property	Property, plant and equipment	Financial instruments – recognition and measurement	Impairment	Capitalisation of borrowing costs	Financial instruments – derivatives and hedge acctg.	Inventory	Provisions and contingencies	Taxation	Share-based payments	Revenue recognition	Pensions and post-retirement benefits	Others	NET INCOME under IFRS
Panel A: Means																	
Financial	100%	4.16%		7.49%		-5.19%			2.66%		0.31%	-6.68%	-0.68%		12.46%	0.80%	115.34%
Pharmaceutical	100%	16.83%	22.56%					-0.16%	0.25%			-1.36%	-1.72%	-1.59%	1.22%	-2.21%	133.83%
Telecommunications	100%	5.53%	1.32%			0.68%		-5.43%	1.26%			7.55%		-4.19%	4.88%	-2.57%	109.02%
Extractive	100%	-0.31%			-1.90%		0.55%	-2.65%		0.93%		-2.79%	1.72%		1.76%	-15.61%	81.71%
Panel B: Median																	
Financial	100%	5.15%		6.27%		5.04%			4.82%		0.70%	-5.48%	-1.09%		6.27%	0.45%	122.14%
Pharmaceutical	100%	21.07%	5.26%					-0.65%	0.65%			-2.82%	-0.10%	-0.40%	1.73%	-0.50%	124.25%
Telecommunications	100%	5.26%	-0.05%			3.20%		0.91%	0.81%			-0.70%		-0.99%	2.46%	0.10%	111.00%
Extractive	100%	-0.27%			-3.12%		3.09%	-8.23%		1.01%		1.17%	0.50%		3.31%	0.86%	98.31%
Panel C: Upper Quartile																	
Financial	100%	6.61%		8.70%		10.62%			8.49%		1.37%	-3.47%	-0.15%		12.61%	2.38%	147.15%
Pharmaceutical	100%	26.58%	96.66%					-0.15%	1.70%			1.42%	0.60%	4.93%	2.83%	0.20%	234.78%
Telecommunications	100%	14.61%	0.28%			5.82%		1.06%	2.17%			1.19%		1.21%	5.71%	1.83%	133.89%
Extractive	100%	1.03%			-1.37%		3.69%	-4.61%		3.53%		3.07%	7.17%		5.49%	2.59%	120.60%
Panel D: Lower Quartile																	
Financial	100%	2.46%		3.23%		0.91%			0.18%		-0.35%	-10.95%	-2.01%		1.57%	-0.47%	94.56%
Pharmaceutical	100%	0.30%	1.06%					-1.01%	-0.22%			-5.17%	-4.21%	-13.34%	0.78%	-5.57%	72.60%
Telecommunications	100%	1.06%	-0.45%			0.65%		0.40%	-1.23%			-5.28%		-3.75%	0.70%	-4.12%	87.98%
Extractive	100%	-1.69%			-5.72%		2.38%	-11.35%		0.58%		-0.49%	-0.75%		1.32%	-1.11%	83.18%

TABLE 3

U.S. Firms Sample
Descriptive Statistics
In millions of US$

Variable	N	Mean		Standard Deviation	Minimum	25% Percentile	Median		75% Percentile	Maximum
Panel A: Financial firms										
Size										
Total Assets	1617	27,999	***	130,722	1	308	925	***	3,624	1,011,212
Market Value of Equity	1617	3,658	***	11,656	1	81	304	***	1,470	80,502
Book Value of Equity	1617	2,211	***	9,228	(315)	49	155	***	712	135,272
Market to Book Ratio	1617	2.30	***	2.65	-2.97	1.27	1.67	***	2.34	18.85
Leverage	1617	23%	***	24%	0%	5%	14%	***	32%	96%
Performance										
Sales	1617	2,501	***	9,847	-	33	111	***	533	71,542
Net Income	1617	296	***	1,087	(50)	3	14	***	76	7,900
ROA	1617	1%	***	18%	-127%	1%	1%	***	3%	72%
ROE	1617	10%	***	29%	-158%	5%	10%	***	15%	150%
Panel B: Pharmaceutical firms										
Size										
Total Assets	878	1,056	***	4,564	0	14	60	***	201	36,178
Market Value of Equity	878	2,290	***	10,363	1	40	138	***	491	82,052
Book Value of Equity	878	692	***	4,291	(11,249)	5	33	***	110	71,358
Market to Book Ratio	878	2.92	***	14.08	-83.23	1.59	3.00	***	5.20	61.29
Leverage	878	42%	***	124%	0%	0%	7%	***	29%	957%
Performance										
Sales	878	690	***	2,884	-	1	19	***	114	22,636
Net Income	878	70	***	489	(318)	(22)	(4)	***	4	4,197
ROA	878	-70%	***	177%	-1159%	-64%	-21%	***	4%	37%
ROE	878	-1%		252%	-773%	-62%	-4%	***	16%	1591%
Panel C: Telecommunications										
Size										
Total Assets	1130	3,340	***	11,673	0	26	153	***	1,007	90,806
Market Value of Equity	1130	3,668	***	11,974	1	33	216	***	1,204	80,584
Book Value of Equity	1130	1,730	***	8,651	(6,215)	10	89	***	462	187,590
Market to Book Ratio	1130	2.08	***	6.75	-37.83	1.18	1.97	***	3.36	29.40
Leverage	1130	40%	***	144%	0%	0%	10%	***	32%	1300%
Performance										
Sales	1130	2,043	***	6,703	-	23	116	***	608	45,375
Net Income	1130	168	***	707	(482)	(5)	2	***	33	5,044
ROA	1130	-56%	***	268%	-2150%	-13%	2%	***	7%	39%
ROE	1130	8%	*	146%	-593%	-9%	7%	***	17%	817%
Panel D: Extractive firms										
Size										
Total Assets	889	3,139	***	13,430	0	17	112	***	748	111,757
Market Value of Equity	889	3,968	***	16,219	1	43	204	***	1,021	123,809
Book Value of Equity	889	1,844	***	9,649	(126)	11	67	***	343	127,092
Market to Book Ratio	889	4.02	***	8.83	-32.33	1.64	2.70	***	4.43	57.63
Leverage	889	21%	***	45%	0%	0%	10%	***	27%	370%
Performance										
Sales	889	2,358	***	11,481	-	-	13	***	272	91,051
Net Income	889	353	***	1,629	(99)	(4)	(0)	***	38	12,826
ROA	889	-26%	***	112%	-890%	-15%	-1%	***	8%	38%
ROE	889	-2%		115%	-519%	-15%	0%		18%	746%

N Number of companies in the U.S. sample

*** Significant at 1% level
** Significant at 55% level
* Significant at 10% level

TABLE 4

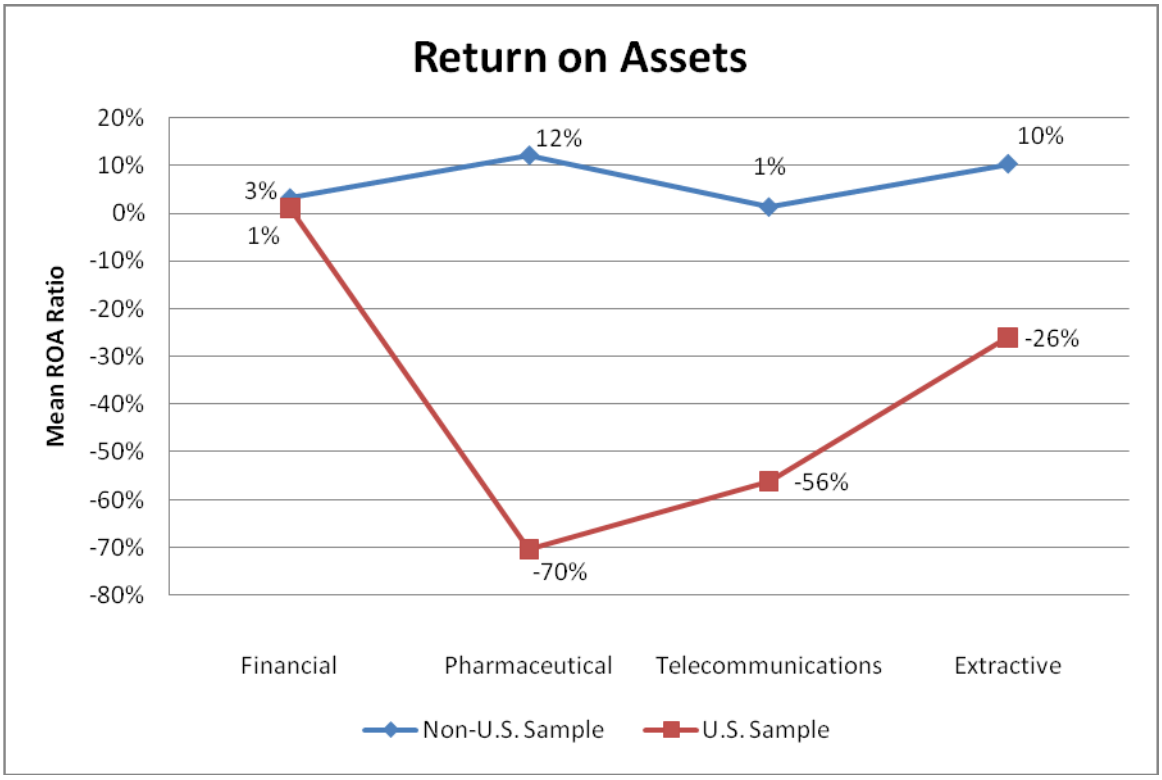
Projected Impact of IFRS Adoption on U.S. Firms Sample

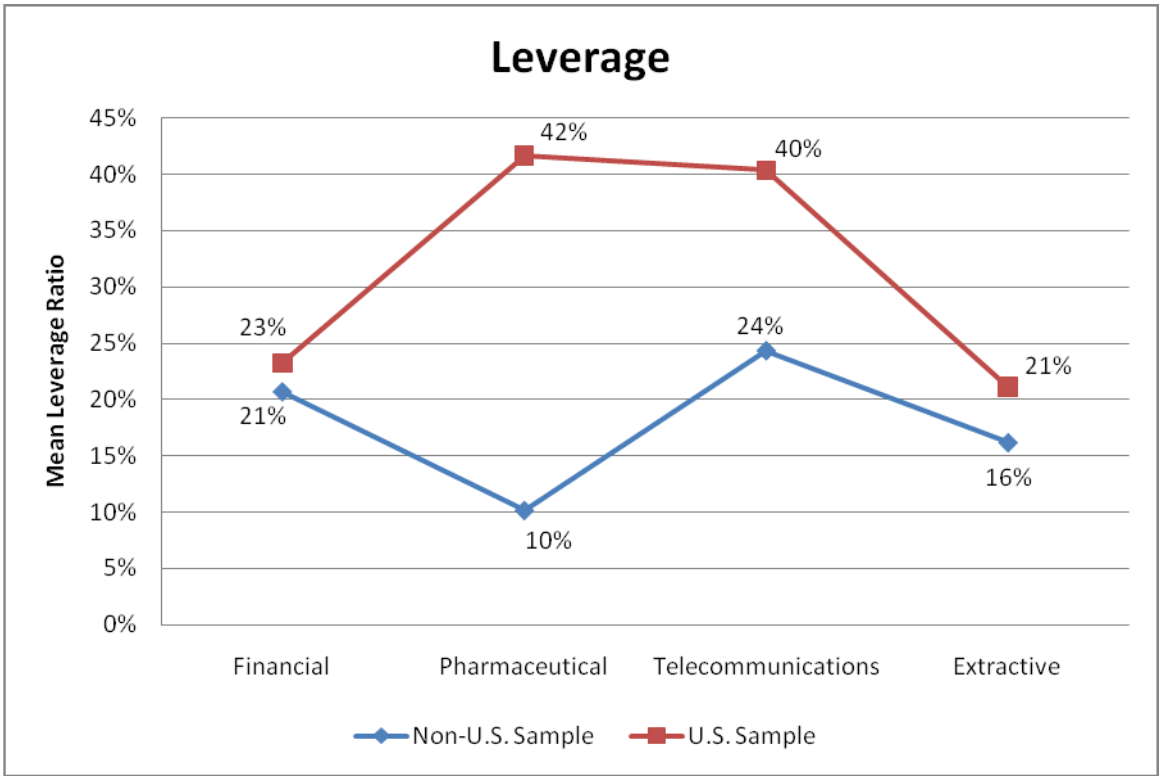
U.S. GAAP- IFRS Net Income Reconciliation

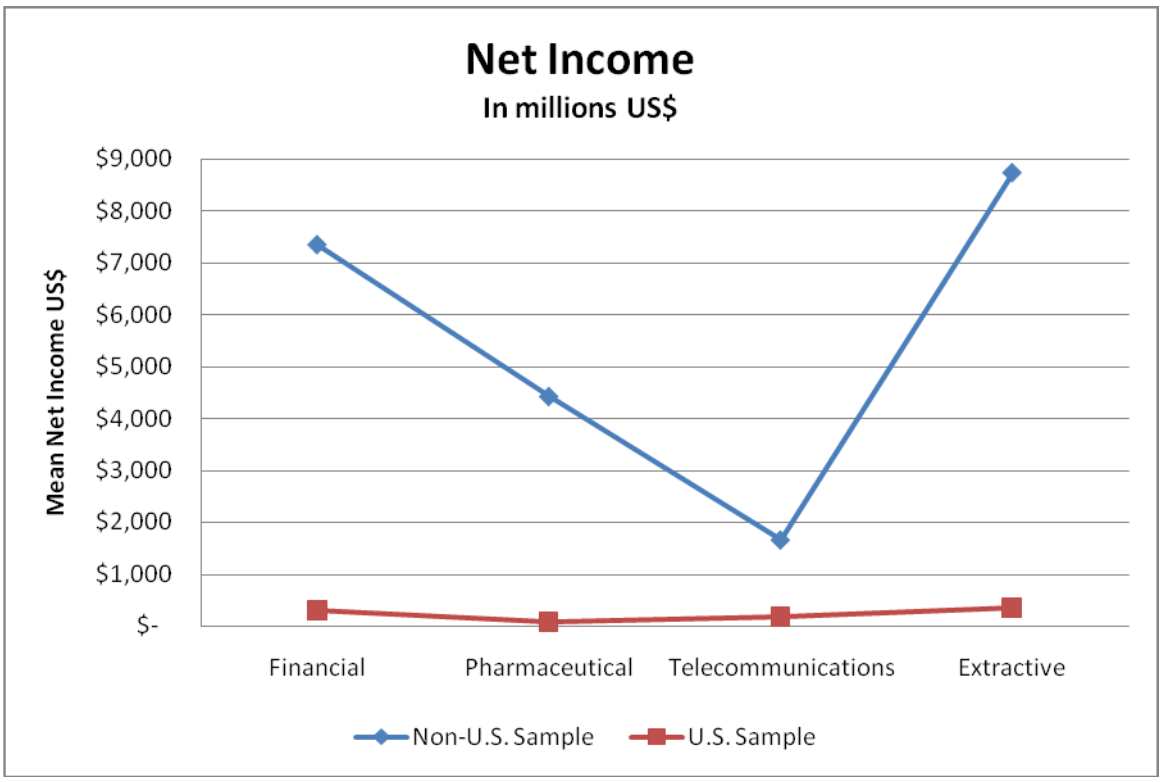
In billions of US$

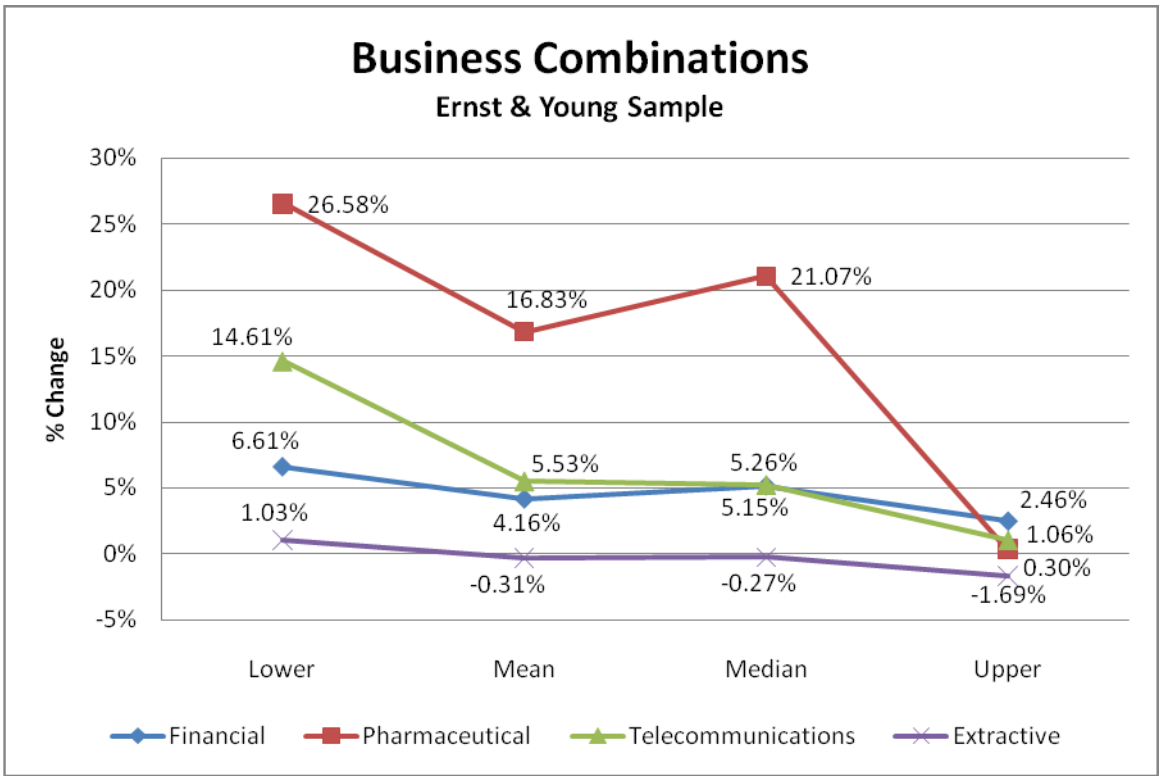
Industry	N	TOTAL NET INCOME under U.S. GAAP	Business combinations	Intangible assets	Investment property	Property, plant and equipment	Financial instruments – recognition and measurement	Impairment	Capitalisation of borrowing costs	Inventory	Derivatives and hedge accounting	Provisions and contingencies	Taxation	Share-based payments	Revenue recognition	Pensions and post-retirement benefits	Others	TOTAL NET INCOME under IFRS
Panel A: Means																		
Financial	1617	544.0	22.6	-	40.8	-	(28.2)	-	-	14.5	-	1.7	(36.3)	(3.7)	-	67.8	4.3	555.3
Pharmaceutical	878	93.0	15.7	122.7	-	-	-	-	(0.9)	1.3	-	-	(7.4)	(9.3)	(8.6)	6.7	(12.0)	206.5
Telecommunications	1130	187.2	10.3	7.2	-	-	3.7	-	(29.6)	6.9	-	-	41.1	-	(22.8)	26.5	(14.0)	204.0
Extractive	889	387.2	(1.2)	-	-	(10.4)	-	3.0	(14.4)	-	5.1	-	(15.2)	9.4	-	9.6	(84.9)	363.5
Panel B: Median																		
Financial	1617	544.0	28.0	-	34.1	-	27.4	-	-	26.2	-	3.8	(29.8)	(5.9)	-	34.1	2.5	627.9
Pharmaceutical	878	93.0	19.6	28.6	-	-	-	-	(3.5)	3.6	-	-	(15.3)	(0.5)	(2.2)	9.4	(2.7)	123.2
Telecommunications	1130	187.2	9.9	(0.3)	-	-	17.4	-	4.9	4.4	-	-	(3.8)	-	(5.4)	13.4	0.5	214.3
Extractive	889	387.2	(1.1)	-	-	(17.0)	-	16.8	(44.8)	-	5.5	-	6.3	2.7	-	18.0	4.7	355.7
Panel C: Upper Quartile																		
Financial	1617	544.0	36.0	-	47.3	-	57.8	-	-	46.2	-	7.4	(18.9)	(0.8)	-	68.6	12.9	719.0
Pharmaceutical	878	93.0	24.7	525.8	-	-	-	-	(0.8)	9.3	-	-	7.7	3.3	26.8	15.4	1.1	689.8
Telecommunications	1130	187.2	27.4	1.5	-	-	31.7	-	5.8	11.8	-	-	6.5	-	6.6	31.1	10.0	278.3
Extractive	889	387.2	4.0	-	-	(7.4)	-	20.1	(25.1)	-	19.2	-	16.7	39.0	-	29.9	14.1	453.7
Panel D: Lower Quartile																		
Financial	1617	544.0	13.4	-	17.5	-	4.9	-	-	1.0	-	(1.9)	(59.6)	(10.9)	-	8.6	(2.6)	508.4
Pharmaceutical	878	93.0	0.3	5.8	-	-	-	-	(5.5)	(1.2)	-	-	(28.1)	(22.9)	(72.6)	4.2	(30.3)	(31.3)
Telecommunications	1130	187.2	2.0	(2.4)	-	-	3.6	-	2.2	(6.7)	-	-	(28.7)	-	(20.4)	3.8	(22.4)	136.6
Extractive	889	387.2	(6.5)	-	-	(31.1)	-	13.0	(61.7)	-	3.1	-	(2.7)	(4.1)	-	7.2	(6.1)	297.2

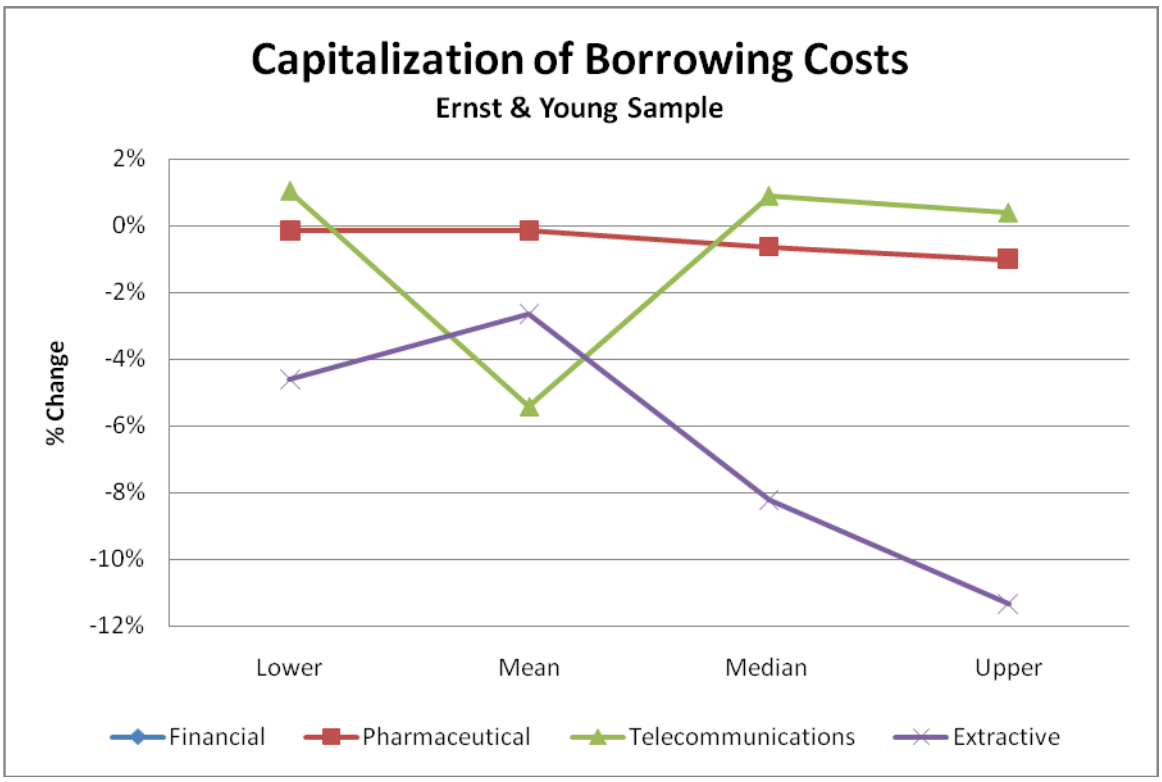
B. Graphical Results

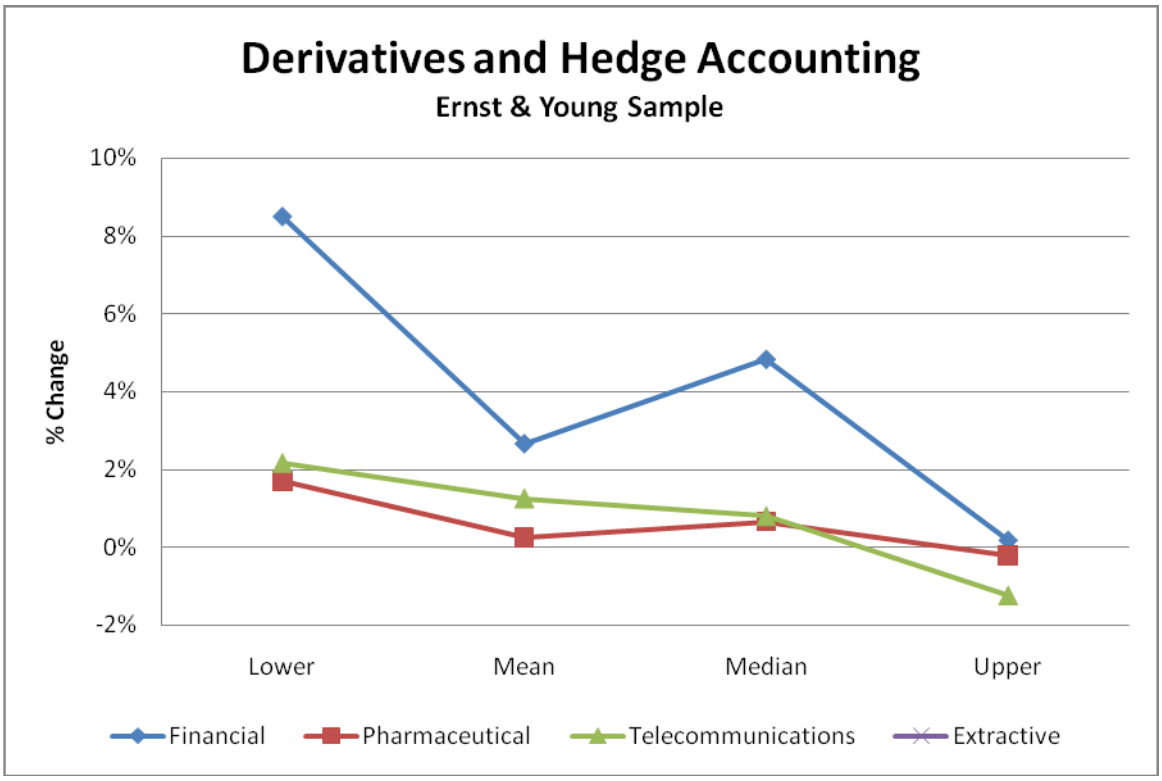


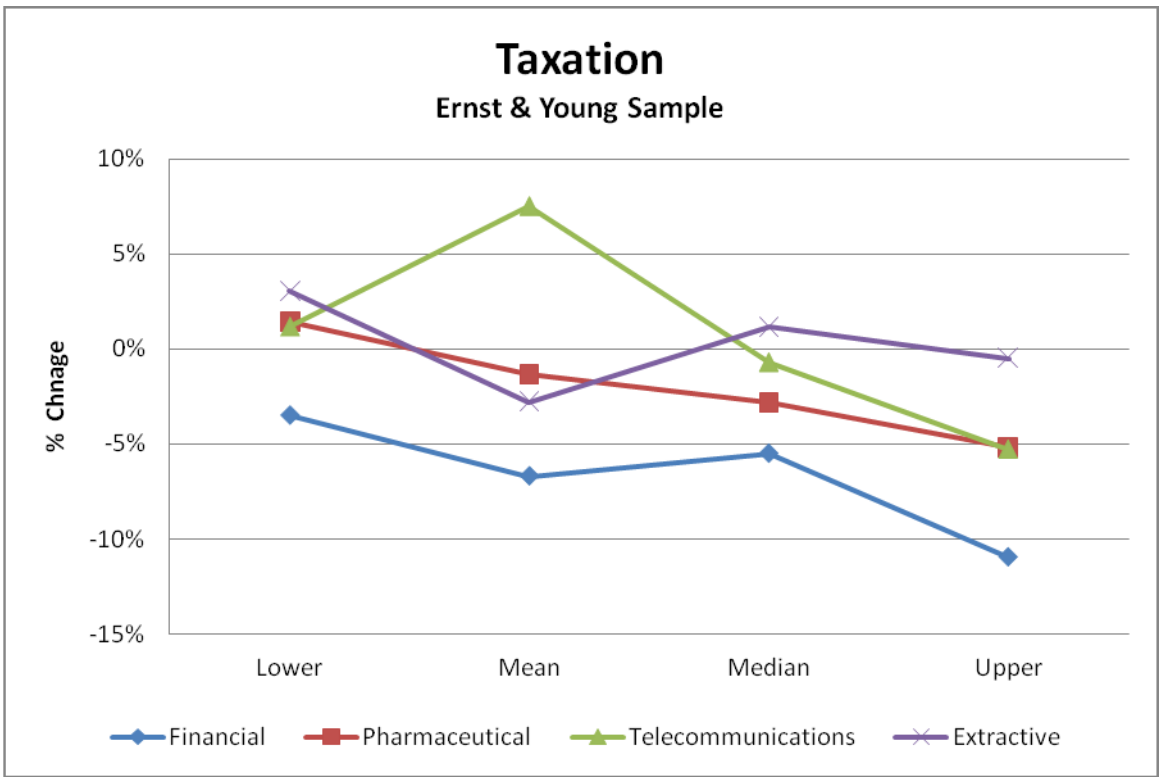


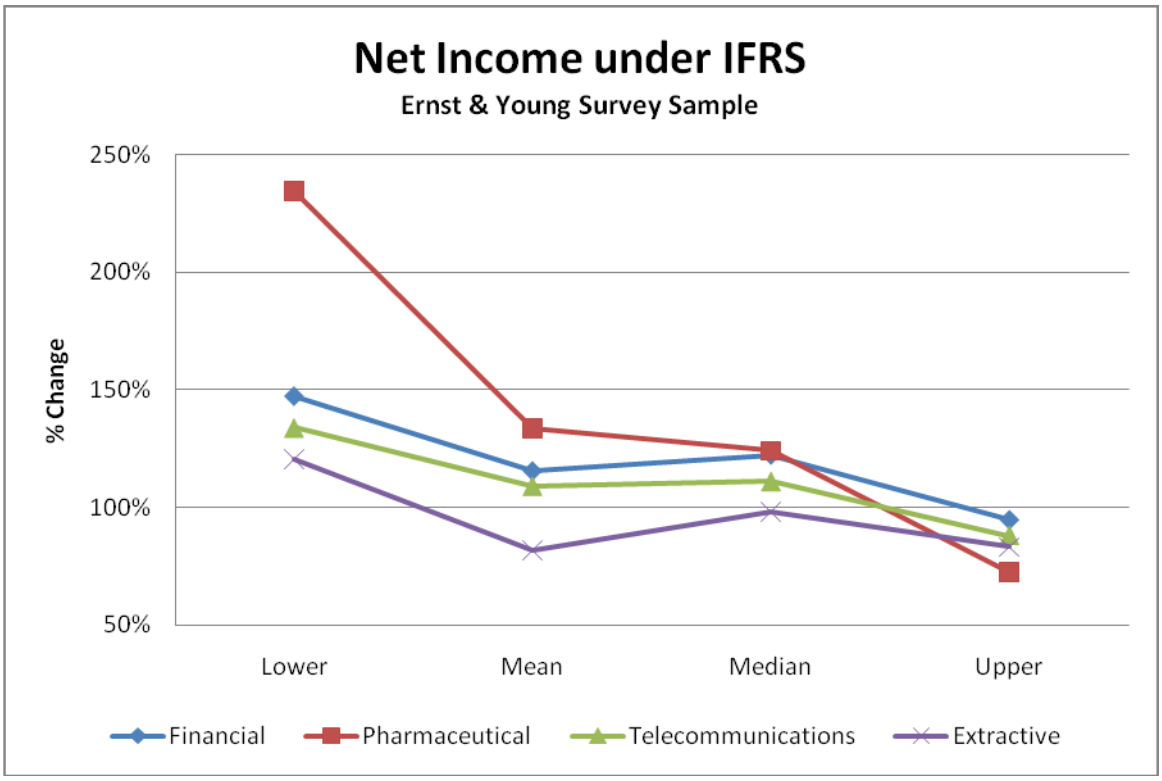

Net Income
In millions US$
Mean Net Income US$
$9,000
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$-
Financial
Pharmaceutical
Telecommunications
Extractive
Non-U.S. Sample
U.S. Sample

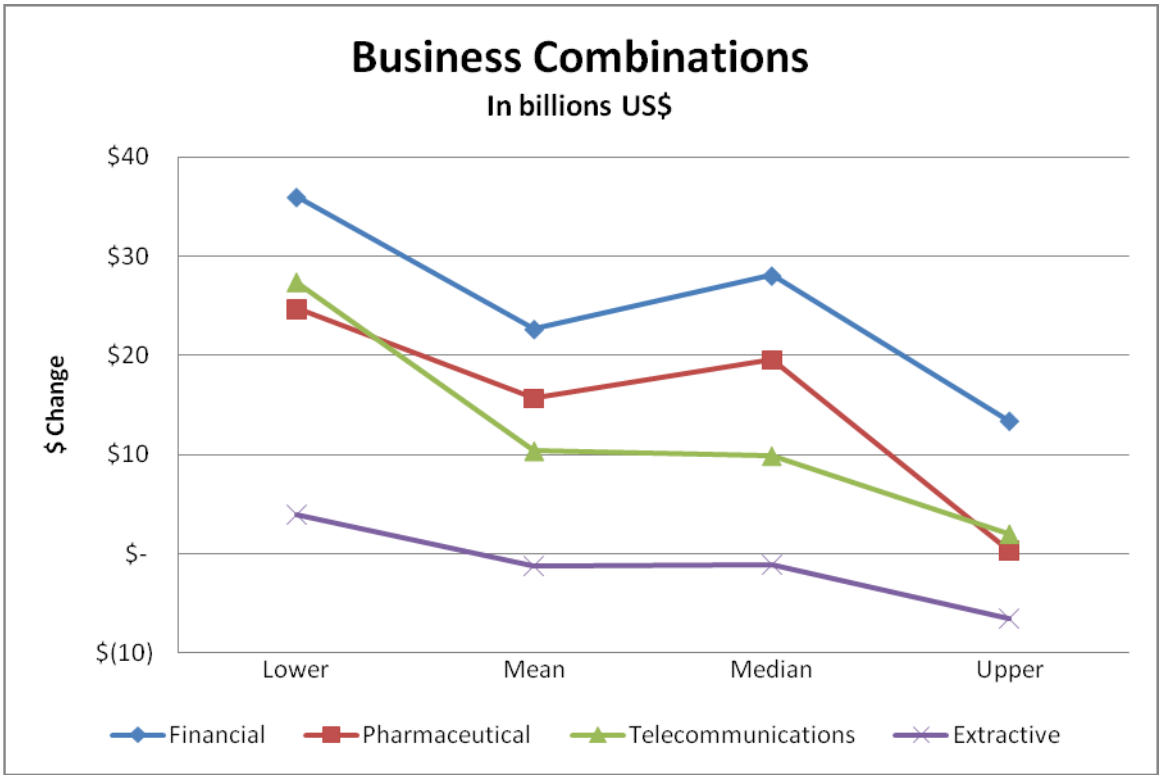

Business Combinations
Ernst & Young Sample
% Change
30%
25%
20%
15%
10%
5%
0%
-5%
26.58%
16.83%
21.07%
14.61%
6.61%
5.53%
5.26%
1.03%
4.16%
5.15%
2.46%
1.06%
0.30%
-0.31%
-0.27%
-1.69%
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive

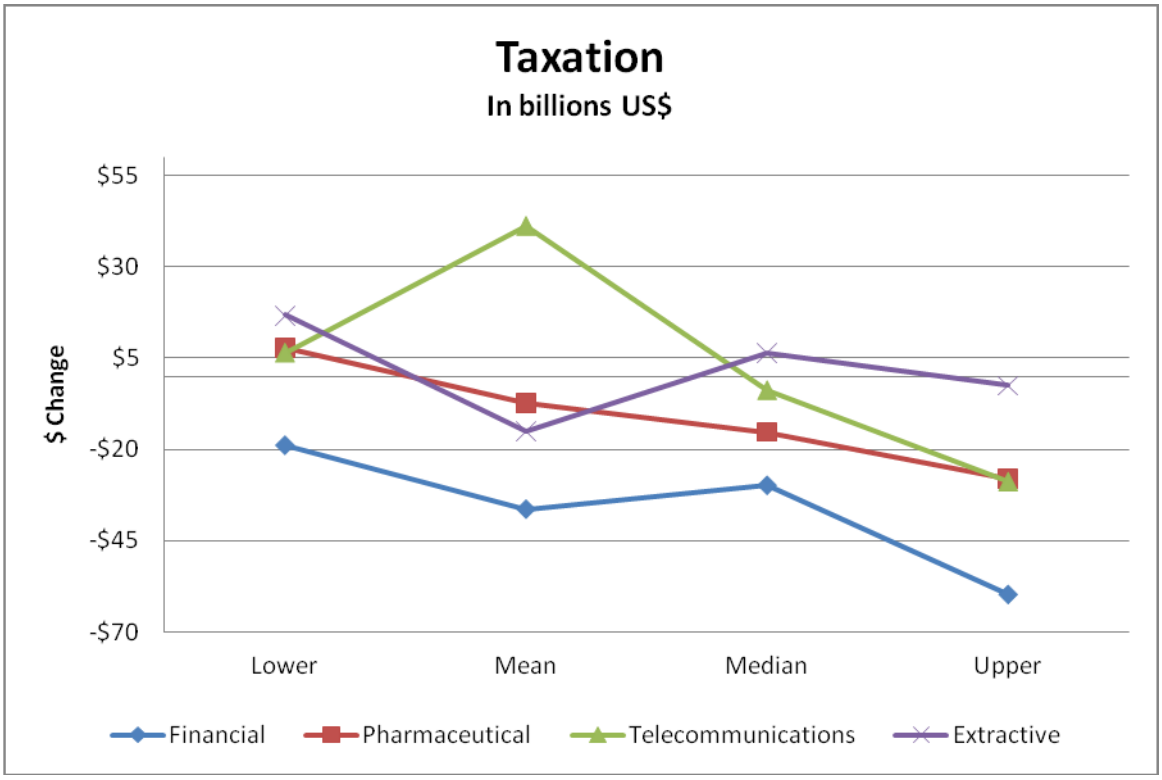

Capitalization of Borrowing Costs
Ernst & Young Sample
% Change
2%
0%
-2%
-4%
-6%
-8%
-10%
-12%
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive

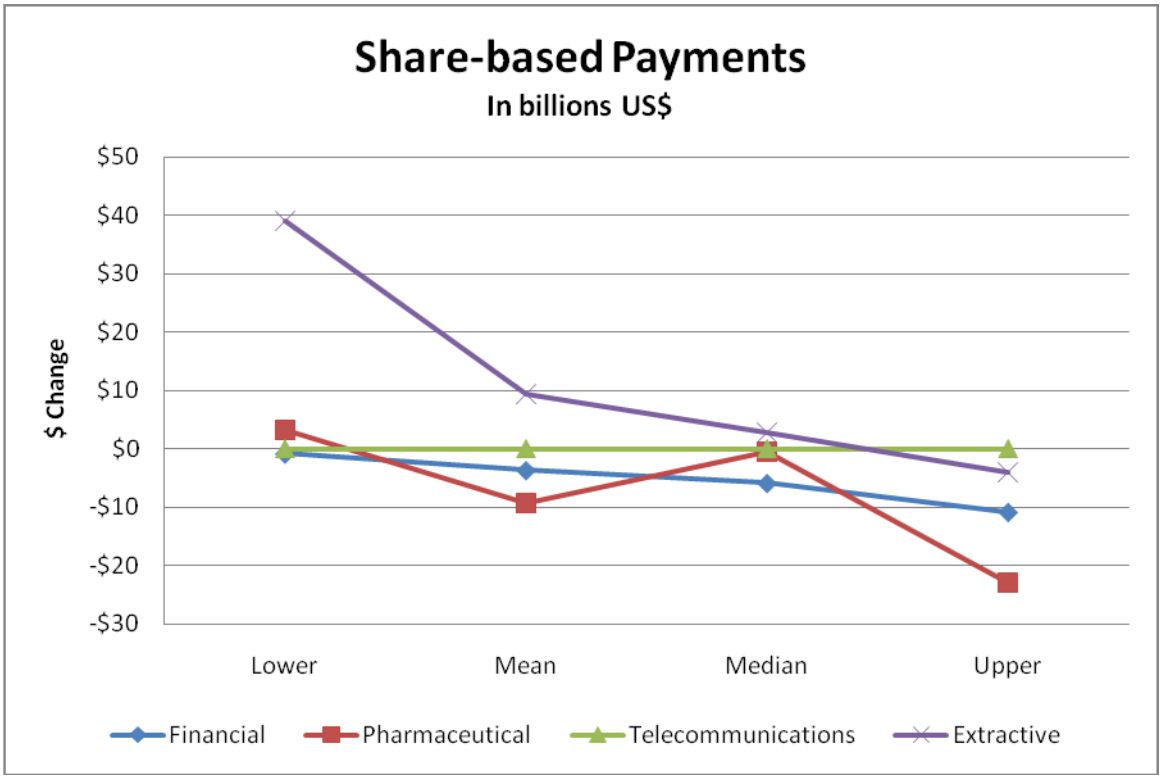

Derivatives and Hedge Accounting
Ernst & Young Sample
% Change
10%
8%
6%
4%
2%
0%
-2%
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive

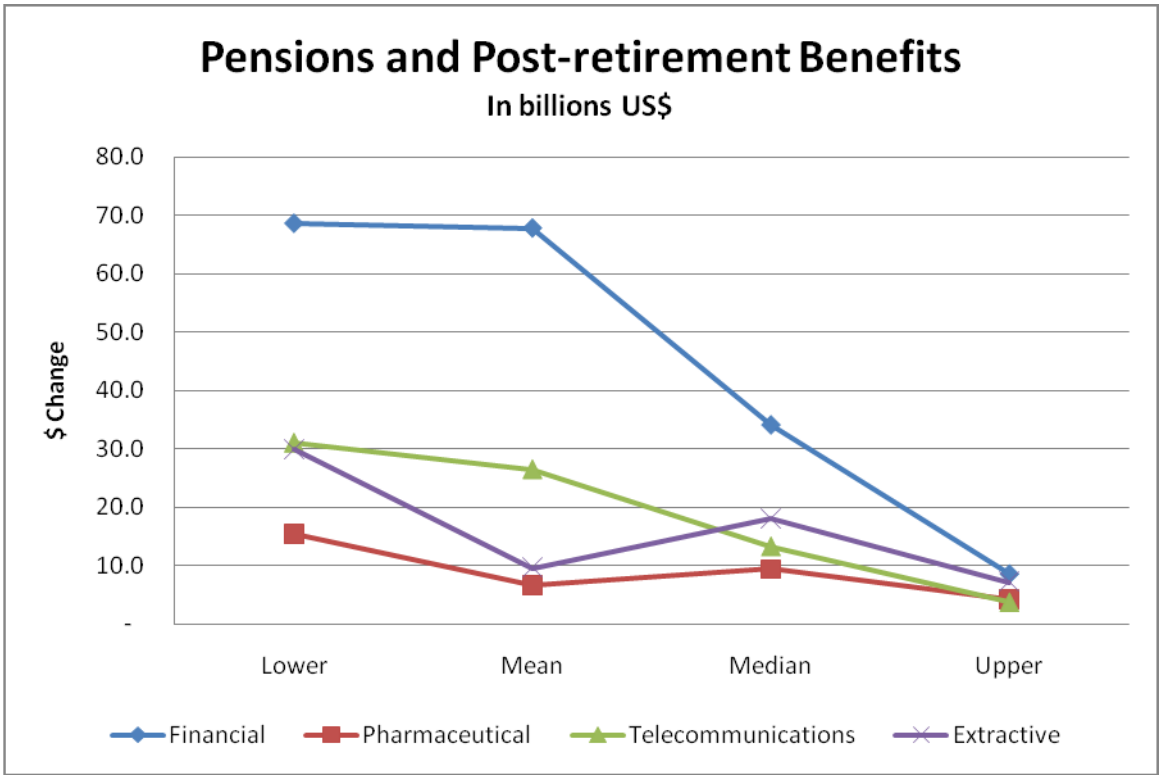

Taxation
Ernst & Young Sample
10%
5%
0%
-5%
-10%
-15%
% Chnage
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive

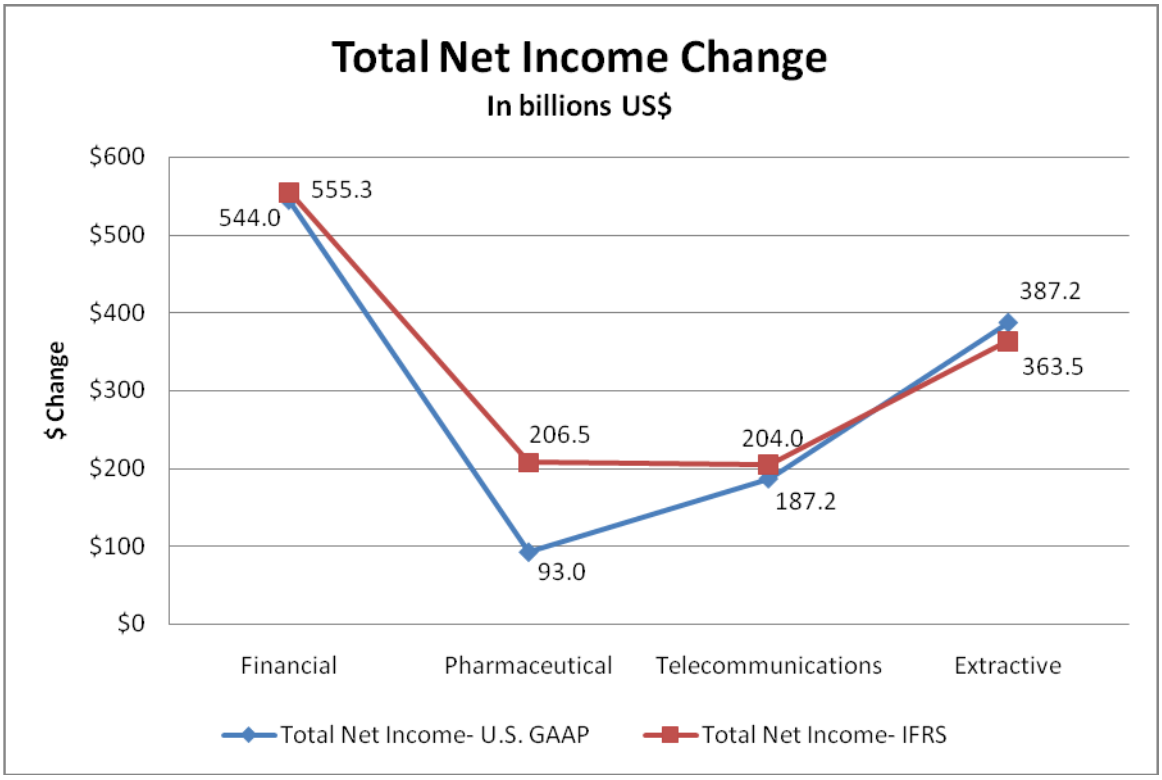

Net Income under IFRS
Ernst & Young Survey Sample
250%
200%
150%
100%
50%
% Change
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive

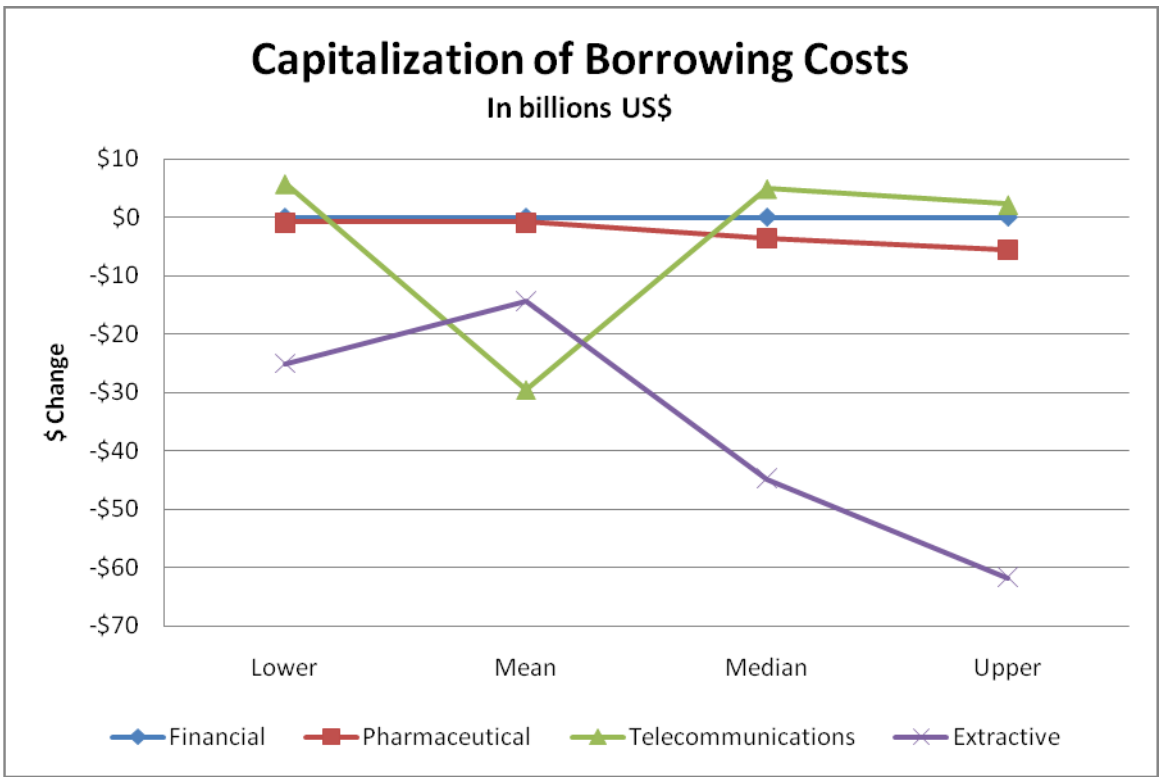

Business Combinations
In billions US$
$ Change
$40
$30
$20
$10
$-
$(10)
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive

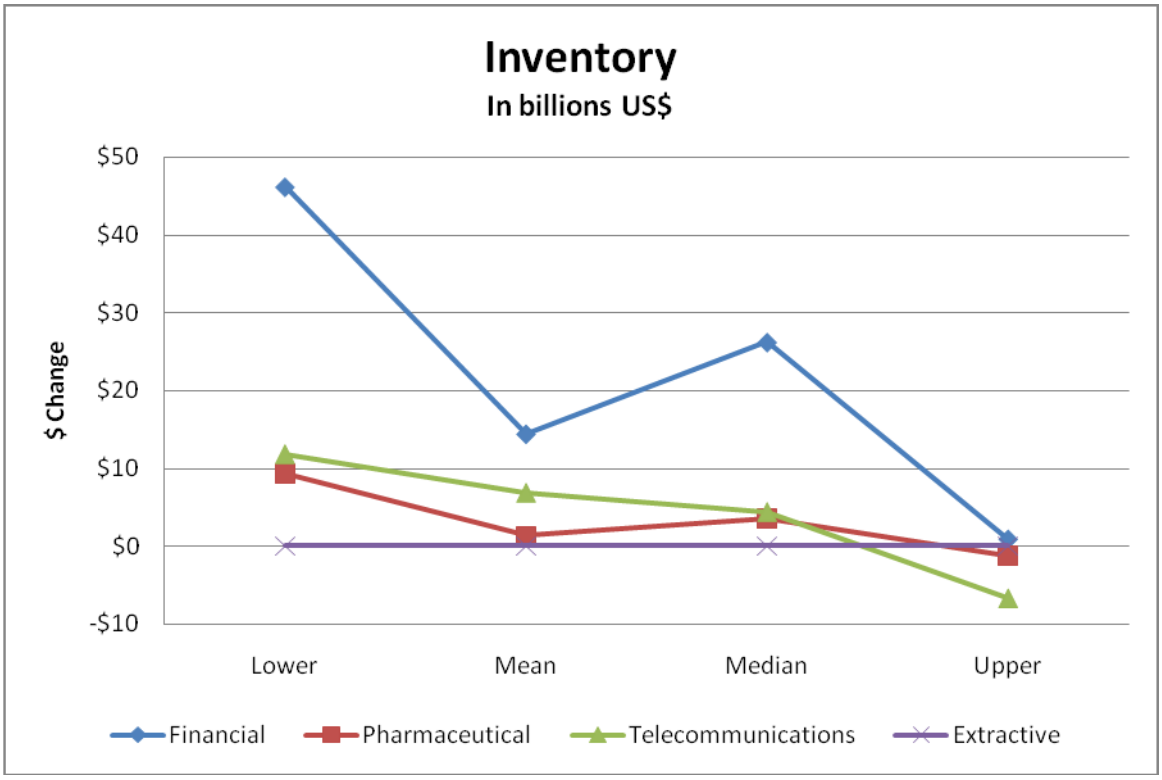

Taxation
In billions US$
$ Change
$55
$30
$5
-$20
-$45
-$70
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive


Share-based Payments
In billions US$
$ Change
$50
$40
$30
$20
$10
$0
-$10
-$20
-$30
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive


Pensions and Post-retirement Benefits
In billions US$
$ Change
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
-
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive


Total Net Income Change
In billions US$
$600
$500
$400
$300
$200
$100
$0
$ Change
555.3
544.0
387.2
363.5
206.5
204.0
187.2
93.0
Financial
Pharmaceutical
Telecommunications
Extractive
Total Net Income- U.S. GAAP
Total Net Income- IFRS


Capitalization of Borrowing Costs
In billions US$
$10
$0
-$10
-$20
-$30
-$40
-$50
-$60
-$70
$ Change
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive


Inventory
In billions US$
$ Change
$50
$40
$30
$20
$10
$0
-$10
Lower
Mean
Median
Upper
Financial
Pharmaceutical
Telecommunications
Extractive

C. Financial and Statistical Metrics

Following is a brief description of the accounting, financial ratios, and statistical value measurements used in this study:

Revenue. Income received from a firm's ordinary business activities.

Revenue= Net sales + exchange of assets + other increase in owner's equity

Net income/loss. Total revenue in an accounting period less all expenses (business, depreciation, interest, and taxes-related) during the same period. It is one of the best measures of the current operating state of a company.

Net income or net loss = revenue – cost of goods sold – sales discounts – sales returns and allowances – expenses – minority interest – preferred stock dividends

Total assets. Everything of value owned by an entity. According to the IFRS framework, "an asset is a resource controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise."

Total assets= current assets + long-term assets

Market value of equity. The current value of all the shares of a company at the current market price. In order to determine the market value of equity, the market value of the debt and the market value of the preferred stock subtracted from the total value of a company.

*Market value of equity= current value of all shares * current market price per share*

Book value of equity. The difference between the book value of assets and the book value of liabilities. It expresses the value of the company's assets expressed on the balance sheet.

Book value of equity= book value of assets- book value of liabilities- preferred stock

Market-to-book ratio. The ratio of the current share price divided by the book value per share. It measures how much a company is worth at present, in comparison with the amount of capital invested by current and past shareholders into it. The price to book ratio is used to determine whether the stock is undervalued (price is expected to rise in the future) or overvalued (popular growth stock).

$$\text{Market-to-book ratio} = \frac{(\text{Price per share} * \text{total \# of shares outstanding})}{\text{book value of equity}}$$

Financial leverage. The degree to which an investor or business is utilizing borrowed money. The financial leverage ratio measures the use of borrowed money to increase production volume, and thus sales and earnings. It is measured as the ratio of total debt to total assets; greater the amount of debt, greater the financial leverage. Companies that are highly leveraged may be at risk of bankruptcy if they are unable to make payments on debt; they may also be unable to find new lenders in the future. Leverage measures a company's ability to meet financial obligations.

$$\text{Financial Leverage} = \frac{\text{total debt}}{\text{total stockholder's equity}}$$

Return on Assets (ROA). An indicator of how profitable a company is relative to its total assets. Also called Return on Investment (ROI), ROA measures how effectively a company has generated profits with its available assets. ROA for public companies can vary substantially and will be highly dependent on the industry. A company's ROA should be compared against other company's ROA in the same industry. The ROA gives investors an idea of how effectively the

company is converting the money it has to invest into net income. A higher ROA is preferable over a lower one. The higher the ROA, the company earns more on less investment. ROA tells how much profit a company generates for each dollar in assets. If a company has no debt, ROA equals Return on Equity (ROE).

$$\textit{Return on Assets (ROA)} = \frac{\textit{net income} + \textit{interest expense} - \textit{interest tax savings}}{\textit{total assets}}$$

Return on Equity (ROE). Measures the amount of net income returned as a percentage of shareholders equity. It is the ratio of a company's 12-month net income to its book value of shareholder equity. Generally, high debt companies have high ROEs. This ratio discloses how much profit a company generates with the money shareholders have invested. Like ROA, ROE is better used when compared to that of other firms in the same industry. ROE is calculated by dividing net income by average shareholders' equity.

$$\textit{Return on Equity (ROE)} = \frac{\textit{net income}}{\textit{total equity}}$$