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IFRS, U.S. GAAP, and XBRL Financial Statements: An Introduction and Case Study



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ABSTRACT

Given (a) the mandate to fully comply with “Interactive Data to Improve Financial Reporting,” (Rule 33-2009; SEC 2009b) which requires all SEC registered companies to include financial statements in XBRL format as exhibits with their quarterly or annual reports on a phased-in schedule, and (b) initiations to converge U.S. GAAP and IFRS, it is crucial for students to understand the methodological differences between XBRL financial reporting for these two standards. Therefore, the goal of this case is to expose students to the IFRS and U.S. GAAP XBRL taxonomies. We use the case of a hypothetical company to first illustrate some of the differences between IFRS and U.S. GAAP reporting at the financial statement level, then map its Income Statement line items into respective XBRL taxonomies, and finally create an XBRL instance document. The case provides two exercises to explain the steps in creating an XBRL instance document for different taxonomies, i.e., accessing and then mapping line items into the IFRS and U.S. GAAP taxonomies (Exercise 1) and creating the actual XBRL instance document for U.S. GAAP and IFRS (Exercise 2).

Keywords

Keywords - XBRL; U.S. GAAP XBRL taxonomy, IFRS XBRL taxonomy; mapping

A teaching note and electronic files are available for use with this case. If you are member of the AIS Educator Association, please go to <http://www.aiseducators.com> and follow the links for the AIS Educator Journal. If you are not a member of the Association, please contact the author directly at the address provided above to obtain these materials. Please provide a means for verifying your credentials as a faculty member so that we may protect the integrity of the solutions materials.

INTRODUCTION

In early February 2009, the U.S. Securities and Exchange Commission (SEC) passed a new rule titled “Interactive Data to Improve Financial Reporting” (Rule 33-2009; SEC 2009b). In summary, it requires that all SEC registered companies begin including financial statements in XBRL format as exhibits with their quarterly or annual reports on a phased-in schedule. As of June 15, 2012, all publicly-traded companies reporting under U.S. GAAP are in compliance. Foreign private issuers reporting to the SEC under IFRS will follow suit upon approval of the IFRS XBRL taxonomy.¹ In addition, the Financial Accounting Standards Board (FASB) in the U.S. has been working with the International Accounting Standards Board (IASB) for over seven years to converge U.S. accounting rules with international financial reporting standards (IFRS). Whatever the outcome of the deliberations about the convergence of U.S. GAAP and IFRS and SEC reporting, it is valuable for accountants to become familiar with IFRS and U.S. GAAP as implemented in the two significantly different XBRL taxonomies. This paper is a brief description of a case that introduces students to both the U.S. GAAP and IFRS 2012 XBRL taxonomies and the creation of financial statements in both formats.

LEARNING OBJECTIVES

The IFRS, U.S. GAAP, and XBRL financial statements case is designed for use in an AIS or intermediate accounting course to get students comfortable with preparing financial statements under both the U.S. GAAP and IFRS XBRL taxonomies. Additionally, the case highlights the challenges and difficulties that will be involved in transiting from U.S. GAAP to IFRS reporting as they relate to XBRL. The case is focused around five core learning objectives:

1. Learn to access the XBRL taxonomies.
2. Understand how the XBRL taxonomies are organized.
3. Map financial statement items to the appropriate IFRS or U.S. GAAP XBRL tag.
4. Understand the differences and challenges in mapping financial statement items to U.S. GAAP and IFRS taxonomies.
5. Create an XBRL instance document containing an income statement for both U.S. GAAP and IFRS reporting.

The first two learning objectives focus on teaching students how to use the 2012 XBRL taxonomies. The first objective is for students to be able to access the XBRL taxonomies. It is important for students to understand that both U.S. GAAP and IFRS have their own separate XBRL taxonomies that are available online. The case describes in detail the necessary steps to gain access to both of these taxonomies. The second objective is for students to understand how the XBRL taxonomies are organized. The case describes how to navigate through the U.S. GAAP and IFRS taxonomies and defines important terminology that is necessary to utilize these taxonomies appropriately.

¹ IFRS 2012 taxonomy, waiting on SEC’s approval, was issued on March 29, 2012.

The third learning objective relates to mapping financial statement items to their appropriate IFRS XBRL tag. The case highlights the difficulty and subjectivity involved in this process. Unlike the U.S. GAAP taxonomy, documentation describing the XBRL tag is not directly available within the IFRS taxonomy. Instead, students must access the core IFRS standards to correctly identify the appropriate tag. From a learning perspective, accessing the core IFRS standards is advantageous in that it introduces students to how IFRS standards are organized and gives students experience in conducting basic financial accounting research.

The fourth learning objective is for students to understand the differences between the IFRS and U.S. GAAP XBRL taxonomies. To accomplish this objective, the case also has students map financial statement items using the U.S. GAAP XBRL taxonomy and highlights key differences between the two taxonomies. Given the SEC's current position on IFRS, it is expected that all U.S. filers will eventually transition to IFRS reporting. As firms move to IFRS, they will also be switching from the U.S. GAAP XBRL taxonomy to the IFRS XBRL taxonomy. Mapping financial statement items to both the U.S. GAAP and IFRS XBRL taxonomies will challenge students to think about the difficulties involved in accomplishing this transition.

Finally, the fifth learning objective is for students to understand how to create an XBRL instance document containing an income statement for both U.S. GAAP and IFRS reporting. This objective requires students to understand the structure and requirements of XBRL instance documents and translate the line item mapping into a valid XBRL instance document.

JUSTIFICATION

XBRL is a relatively new topic in AIS courses and a very new subject in intermediate accounting. The majority of the leading AIS textbooks (e.g., Gelinas et al 2012, Romney and Steinbart 2012, Hall 2011) include a short introduction to XBRL. However, possibly because of delays in publication cycles, no textbooks to our knowledge cover the most current XBRL taxonomies. In addition, there is no material of which we are aware that contrasts the U.S. GAAP and IFRS XBRL taxonomies, explains mapping of financial statements line items to the two taxonomies, or creates an instance document containing both U.S. GAAP and IFRS elements.

DESCRIPTION

The IFRS, U.S. GAAP, and XBRL financial statements case introduces students to the following: the U.S. GAAP and IFRS 2012 XBRL taxonomies, the core IFRS standards, the differences between U.S. GAAP and IFRS income statements, mapping income statement line items to the two taxonomies, and the steps necessary to create an XBRL instance document containing an income statement in both U.S. GAAP and IFRS for an example company.

The case involves a publicly-traded company, referred to as "Example Company," that is currently reporting to the SEC as a "foreign private issuer." The company has experience reconciling their IFRS financial statements to U.S. GAAP, as required by the SEC after 2007. When the IFRS XBRL taxonomy is approved for SEC reporting, they will be required to file their annual financials (form 20-F) in XBRL format.

The first exercise introduces students to the U.S. GAAP and IFRS 2012 XBRL taxonomies and requires them to map elements from the U.S. GAAP and IFRS income statements to

the taxonomies. Starting with a spreadsheet containing Example Company's IFRS and U.S. GAAP income statement line items, students must access the two separate taxonomies and choose an appropriate element to use to tag the reported balance for each line item. The students are also required to make notes about any assumptions they make or questions they have about their selection. The finished project is a spreadsheet with each U.S. GAAP and IFRS line item being mapped to a specific element in the appropriate XBRL taxonomy.

Doing the exercise in small groups allows students to discuss assumptions and alternative choices. Since students are already familiar with income statements, the primary difficulty will involve becoming familiar with the two XBRL taxonomies and choosing an element. Grading is somewhat subjective because choices will vary depending on assumptions. Since some choices are more appropriate than others, element choice makes for a rich classroom discussion. Students should be allowed to change their choices before completing Exercise 2. This exercise requires two to three hours on average to complete.

The second exercise introduces the structure and contents of XBRL instance documents and requires the students to create an XBRL instance document containing income statements in both U.S. GAAP and IFRS format. Starting with their completed mapping spreadsheet from Exercise 1, students must code their income statements in XBRL format. The students are provided with an XBRL shell document to guide them through the process and detailed instructions and explanations of the technical components and complexities of building XBRL instance documents. If done individually, each student learns how to build an XBRL instance document.

Following the case instructions, students open the XBRL shell in a text editor (e.g., Notepad on Windows or TextWrangler on Macs) and build a well-formed XBRL instance document. As they work to complete their XBRL instance document, students are instructed to periodically save their work and open the file in a Web browser to make sure it is well-formed (i.e., it is free from syntactical errors). Firefox provides more descriptive error messages and therefore is the recommended browser. While somewhat technical, students learn the basics of XBRL formatted income statements, become familiar with how to read and interpret XBRL documents, and learn how to actually code each reported balance in XBRL format. Grading is straightforward, as it is based on whether students followed the instructions for using the XBRL shell and whether the completed instance document is well-formed. This exercise requires two to three hours to complete.

EVIDENCE OF EFFECTIVENESS

The exercises presented here have been used by one of the authors in multiple sections of a capstone undergraduate AIS course and a "Current Issues in MIS" graduate course during the 2010-2011 academic years. The case has been used to introduce the IFRS taxonomy and differences between U.S. GAAP and IFRS XBRL financial reporting and the inclusion of both types of income statements in a single XBRL instance document. The case has been modified so that students do not need prior knowledge of XML and XBRL through the inclusion of the XBRL document shell explained in "Exercise 2" above. Students found the exercises to be a very valuable exposure to IFRS in general, the differences between the two taxonomies and their underlying reporting standards, and the creation of an XBRL instance document containing both types of income statements. The details of the exercises presented here were subject to several reviews and revisions by all the authors. In addition, they are now being implemented in

the authors' classrooms and in several AIS classes at the graduate and undergraduate levels at other universities.

One of the accounting Assurance of Learning (AOL) objectives at the University of Delaware is that "students should show proficiency in financial reporting using XBRL." This learning objective is evaluated through the grade received on this and other XBRL projects. The case could also be used as an AOL objective related to IFRS vs. U.S. GAAP financial statements.

CONCLUDING COMMENTS

Through the exercises in this case, students are exposed to 1) the IFRS and U.S. GAAP 2012 XBRL taxonomies; 2) the steps involved in mapping an Income Statement's line items into XBRL taxonomies; 3) some of the differences between IFRS and U.S. GAAP reporting at the financial statement level; and 4) the basics of creating an XBRL instance document. No prior knowledge of XBRL is required. All publicly-traded companies reporting under U.S. GAAP must include financial statements in XBRL format with their quarterly and annual filings and, upon approval by the SEC of the IFRS XBRL taxonomy, all foreign private issuers will do the same. It is imperative that today's accounting graduates have at least an introductory understanding of XBRL. In our computerized world, XBRL instance documents are one of the components of financial reporting that improves the analyzability of financial reports and the transparency of financial reporting. XBRL instance documents reside in the SEC Edgar database and are available for use by anyone with the appropriate software tool, including a new iPhone app called Brix (free from the iTunes Store). As introduced in this case, today we add XBRL tagging on top of our traditional financial reporting processes. Tomorrow, as XBRL reporting matures along with the availability of high quality software tools, it will become the foundation from which all financial statements are generated.

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