

CONSOLIDATED FINANCIAL STATEMENTS – IPSAS VS IFRS

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Abstract

The consolidated financial statements represent a topic that gains more and more ground in the international research. This issue is of high interest and it is heavily debated by academics, practitioners and regulators. The reforms of the public sector, such as the implementation of these new types of reports, namely the consolidated reports, have tried to approach the public sector accounting system to the private sector one. As the standards of the private sector have suffered amendments in 2011 and IASB issued new standards regarding the issue of consolidation, we aim to measure the degree of similarity and dissimilarity between IPSAS 6, 7, 8 and the new private sector accounting standards IFRS 10, 11, and IAS 28. According to the undertaken analysis, we could observe that the standards are quite different, difference that can be explained by the changes suffered by the private sector standards.

Keywords consolidated reports, IPSAS, IFRS, IAS, similarity, dissimilarity

JEL classification: M41, M48

1. Introduction

The public sector has been lately affected by a series of reforms, reforms that had a great impact on the management system, accounting system, and hence the financial reporting system (Cîrstea and Cîrstea, 2015).

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The introduction and preparation of a new set of reports, namely the public sector consolidated financial statements, is considered one of the most important changes that have influenced the public sector accounting and reporting system. Nowadays, there are not so many countries that have implemented these reports in the public sector, but worldwide, a significant interest for the implementation of such reports can be noticed. Australia and New Zealand can be considered the pioneers of the reforms in the public sector, and highly support the implementation of the consolidated financial statements in the public sector, because they are aware of the benefits they bring.

In the public sector, there were issued specific standards, namely IPSAS (International Public Sector Accounting Standards), standards that were issued based on IAS/IFRS (International Accounting Standards/International Financial Accounting Standards). The IAS/IFRS suffered changes over time, and these changes have determined a distancing of IPSAS from IAS/IFRS.

These changes have determined us to analyze how close the standards related to the issue of consolidation are, and this research was influenced by the common objective of the regulatory bodies, that of having similar standards in the two sectors. So, in our study we computed the degree of similarity and dissimilarity between IPSAS 6 and IFRS 10, IPSAS 7 and IAS 28, IPSAS 8 and IFRS 11, in order to see if there was indeed a need to amend the public sector accounting standards. This analysis is actually the second phase, the second step of an extensive research project in which we intend to track and measure over time if these two sets of standards concerning the consolidated financial statements become closer or more distant.

2. Research Methodology

The main objective of the article is to create an overall picture of the first regulations concerning CFS for public sector and those modified in the private sector, target that we tried to get by comparing the IPSAS (2011) regarding the consolidated financial statements and the IFRS/IAS (2011) those applicable to private sector entities.

The research methodology of this paper includes both qualitative and quantitative research methods, which are based on computing the degree of similarity and dissimilarity between IPSAS and IAS (Cîrstea and Cîrstea, 2015).

In order to reach our objective, we used Jaccard coefficients, often used to measure similarity and dissimilarity (Rahman et al., 1996; Fontes et al., 2005; Ding et al., 2007; Tiron, 2010, Cîrstea and Cîrstea, 2015). For bringing more added value to the study, we also used Sorensen-Dice coefficient, which measure the similarity between the two sets of standards.

So, the calculation formula for the Jaccards' Coefficients is:

$$S_{ij} = a / (a + b + c) \quad (1)$$

and

$$D_{ij} = (b + c) / (a + b + c) \quad (2)$$

And the calculation formula for Sorensen-Dice coefficient, is:

$$Dice = 2a / (2a + b + c) \quad (3)$$

where:

- S_{ij} – represents the degree of similarity between the two sets of analyzed accounting regulations
- D_{ij} – represents the degree of diversity between the two sets of analyzed accounting regulations
- Dice - Sorensen-Dice coefficient
- a – represents the number of elements which take the 1 value for both sets of regulations
- b – represents the number of elements which take the 1 value within the “j” set of regulations and the 0 value for the “i” set of regulations
- c – represents the number of elements which take the 1 value within the “i” set of regulations and the 0 value for the “j” set of regulations.

3. A short literature review

The subject of consolidated financial statements wins lately an important place among the interests of international researchers (Grossi and Pepe, 2008; Grossi, 2009; Christiaens, Rommel and Van Cauwenberge, 2008; Bergmann and Bietenhader, 2008; Tagesson, 2008; Wise 2010; Walker, 2011; Grossi and Gardini, 2012; Argento et al., 2012) and practitioners and regulatory bodies (IPSASB). The researchers' attention was focused on analyzing existing regulations in countries that are considered the pioneers of these public sector reforms, trying to identify the main approaches or

differences between them, but at the same time have highlighted the benefits brought in the public sector (Grossi and Pepe, 2008) and also the obstacles they have encountered (Bergmann și Bietenhader, 2008). The issue of harmonization and convergence of the public sector was also studied by the researchers (Pina and Torres, 2003; Benito et al., 2007; Pina et al., 2009; Tiron, 2010).

Nowadays, we can notice that there is a close link between IPSAS and the harmonization of accounting in the public sector, and there is also a series of debates on the convergence or harmonization of accounting in the public sector, debates that have become much more numerous once the IPSAS were issued. Accounting harmonization process has been widely debated over time and is considered by Van der Tas (1988) "coordination, consensus between two or more objects." The international accounting harmonization is to reduce or overcome the global differences in order to achieve a better comparability of the financial statements (Choi et al., 2005).

So, taking into account that the public sector literature is quite poor, we thought it would be appropriate to measure the convergence of international accounting standards for the public sector and those of the private sector. Thus, below we intend to realize an empirical study through which to emphasize the degree of closeness/remoteness between the two sets of standards, those which were applicable to the public sector in 2011 (IPSAS) and those which are now applicable to the private sector.

4. Research Design

We analyzed only the standards that refer to the consolidated financial statements both in the public and private sector. So, we identified 3 comparisons, namely IPSAS 6 vs IFRS 10, IPSAS 7 vs IAS 28 and IPSAS 8 vs IFRS 11. Then we established the elements subject to comparison, namely: the scope of the standard, the terminology/definitions, presentation of consolidated financial statements, the scope of consolidated financial statements, consolidation procedures, separate financial statements, disclosure. The above mentioned items were detailed in some sub-items that are subject to comparison, and finally with the help of some coefficients we determined the degree of similarity, or dissimilarity between the analyzed standards. The analysis of the degree of similarity was performed by using Jaccard coefficients and Sorensen-Dice coefficient, and the degree of dissimilarity was determined by using only Jaccard coefficients.

The starting point of the empirical analysis was to establish three hypotheses which were tested using the association/correlation coefficients.

H1: IPSAS 6 substantially differ from IFRS 10.

H2: IPSAS 7 substantially differ from IAS 28.

H3: IPSAS 8 substantially differ from IFRS 11.

After the objectives were set, we started to analyze the elements and sub-elements established for the comparison. So, we used a binary coding of the elements analyzed, using the values "0" and "1" to determine the degree of dissimilarity, namely the similarity between the two sets of regulations. Thus, for each of the sub-items identified based on the comparative method, we assigned a value of 0 for those who are not in standard or are significantly different or a value of 1 to those elements that are found and fit entirely, or are substantially similar, as can be seen in Table 1.

Table 1 The exemplification of the used method in the analysis of the items

Compared elements	Compared sub-elements	Compared standards	
		IPSAS 8	IFRS 11
Scope of the standard	<i>(1) accounting for interests in joint venture</i>	1	1
	<i>(2) exclusions from the scope</i>	1	0
	<i>(3) application for all public sector entities</i>	1	0
Terminology/ Definitions	<i>(4) similarity of terms</i>	1	0
	<i>(5) consolidated financial statements</i>	1	0
	<i>(6) control</i>	1	0
	<i>(7) equity method</i>	1	1
	<i>(8) investor in a joint venture</i>	1	0
	<i>(9) joint control</i>	1	1
	<i>(10) joint venture</i>	1	1
	<i>(11) proportionate consolidation</i>	1	0
	<i>(12) separate financial statements</i>	1	1
	<i>(13) significant influence</i>	1	1
	<i>(14) venturer</i>	1	1
	<i>(15) joint arrangement</i>	0	1
	<i>(16) joint operation</i>	0	1
	<i>(17) joint venturer</i>	0	1

	(18) party to a joint arrangement	0	1
	(19) separate vehicle	0	1

Source: Own projection

However, to achieve the proposed objective and to see if the standards are similar or not, we computed the Jaccard coefficients and the Sorensen-Dice coefficient, coefficients that can be seen in the tables below.

Table 2 Exemplification of the comparison analysis between IPSAS 8 and IFRS 11 based on Jaccard, Sorensen-Dice coefficients

Compared elements	Jaccards' Coefficients		Sorensen-Dice Coefficient
	Sij	Dij	
Scope of the standard	0.333	0.667	0.500
Terminology/Definitions	0.375	0.625	0.545
Presentation of consolidated financial statements	0.000	1.000	0.000
Scope of consolidated financial statements	0.833	0.167	0.909
Consolidation procedures	0.400	0.600	0.571
Separate financial statements	0.000	1.000	0.000
Disclosure	0.200	0.800	0.333

Source: Own projection

Table 3 The degree of comparison between standards based on Jaccard, Sorensen-Dice coefficients

Compared cases	Jaccards' Coefficients		Sorensen-Dice Coefficient
	Sij	Dij	
IPSAS 6 vs IFRS 10	0.326	0.673	0.491
IPSAS 7 vs IAS 28	0.619	0.381	0.765
IPSAS 8 vs IFRS 11	0.375	0.625	0.545

Source: Own projection

5. Results and Conclusions

The tables above show us that the similarity between the standards related to public sector and those related to private sector regarding the issue of consolidation is not very high. Even if, at the beginning, the IPSAS were based on IAS, after the amendments made on the private sector regulations, things have changed a little bit. So, the standards applicable to the private sector are different from those applicable to the public sector. According to one of the main objectives of IPSASB and IASB, that of having a high convergence between the two sets of standards, the IPSAS should be considered in order to be changed. This have already happened and IPSASB had put on their agenda a revision project of IPSAS 6, 7 and 8. The project had been finalized with the issue of new standards for consolidation, namely IPSAS 35, 36, 37 in January 2015. Throughout our study, we tried to show the dissimilarity that exists between the unmodified IPSAS and the new IFRS regarding the issue of consolidation and the need for revised or new standards in the public sector.

As we can observe from the empirical study conducted, there is a low similarity between IPSAS 6 and IFRS 10. The value of Jaccard similarity coefficient is 0.326, which confirms us that IPSAS 6 and IFRS 10 are quite different. This is also sustained by the value of Jaccard dissimilarity coefficient, namely 0.673 and that of Sorensen-Dice Coefficient, namely 0.491. According to these coefficients, we can conclude that the first hypothesis is verified, so IPSAS 6 substantially differ from IFRS 10.

The comparison between IPSAS 7 and IAS 28 shows us that these two standards have more items in common than different, so we cannot validate the second hypothesis. There are several elements that have been changed, but we cannot conclude that IPSAS 7 substantially differ from IAS 28. The low difference between these two standards is supported by the value of Jaccard similarity coefficient, 0.619 and that of Jaccard dissimilarity coefficient, 0.381. The value of Sorensen-Dice Coefficient (0.765) also indicates little difference between the two analyzed referentials.

The third hypothesis brings to the forefront the comparison between IPSAS 8 and IFRS 11. We can observe that the value of Jaccard similarity coefficient calculated between these two regulations is low, taking the value 0.375. At the same time, the value of Jaccard dissimilarity coefficient is quite high, namely 0.625. These values computed demonstrates that there is a high

difference between IPSAS 8 and IFRS 11, so, in this case hypothesis 3 can be validated.

Having in mind the joint goal of the regulatory bodies responsible for issuing high quality standards in private and public sector, that of being a high convergence between the standards applied in the two sectors, private and public, we consider that the issue of the new IPSAS was necessary. Anyway, there are some differences between the public and private sector, differences that cannot be overlooked and the regulatory bodies should always have in mind these specific topics. We consider that a single set of standards for public and private sector is not a desire that can be realized and this due to the specificities of each sector.

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