A comprehensive analysis of the International Public Sector Accounting Standards (IPSAS) implementation and the transition of public sector entities from using a cash based accounting framework to an accrual based one

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ABSTRACT

In the late 1990s and early 2000s the public sector worldwide began the implementation of the International Public Sector Accounting Standards (IPSAS) as a move away from traditional cash based accounting and into the new more progressive accrual based accounting. This paper looks at the implementation process and its implications for the quality of the accounting statements both during the transition phase of IPSAS implementation and after the implementation is complete. This is accomplished a case study that examines statements during their transition phase and compares the way the accounting was done pre-IPSAS to the way it was done post IPSAS implementation. The paper also provides an overview of the IPSAS implementation in Europe, its challenges during the implementation period, the reasoning behind picking accrual accounting over cash accounting, and, finally, the effect of this implementation on statements released by the public sector. Overall, the paper concludes that switching to an accrual based accounting standard such as IPSAS in the public sector is the right choice, as it provides a more accurate overview of the entity's financial reality.

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Introduction

The International Public Sector Accounting Standards (hereafter referred to as IPSAS) is an accounting and reporting system established for the public sector to promote transparency. It was developed by the IPSAS Board, founded in 1997, with the aim of improving the quality of the accounting in the public sector. It defines a conceptual framework to be used by public entities that promotes both convergence with the private sector due to its proximity with IFRS (the accounting conceptual framework used by the private sector) and comparability between statements issued by different organizations and countries. As of today, 31 standards have been issued, and the framework has been implemented by most countries in the developed world as well as supranational organizations, such as the European Commission, NATO and many others (IPSAB, 2016).

Over the past decade, there has been a major shift towards accrual accounting in the public sector. The first country to introduce accrual accounting was Chile in the 1973, followed by New Zealand in 1990. This was followed by a major shift towards accrual accounting on the part of the majority of the world governments (Carlin, 2005). By 2000, 22 of the most developed OECD countries had adapted accrual accounting, and by 2002 all of Europe was making the switch, with the European Commission itself starting the transition in 2005. One of the major observations during the transition period is that the budgeting was always left as the last component to conform to the new standard, with accounting switching first and budgeting following after (Matheson, 2002).

This paper focuses on the IPSAS impact on the financial statements of public entities and supranational organizations. Therefore, a comprehensive analysis of IPSAS and the impact that the change from cash based accounting to accrual based accounting has on these statements will be discussed in detail. The research will be split into three main parts. Firstly, an analysis of how cash based accounting and accrual based accounting compare to each other will be performed. Further, the impact that IPSAS has had on public sector accounting in multiple countries in Europe as well as supernatural organizations shall be discussed. Emphasis will be laid on European countries that have undergone transition recently due to a positive shift in their political culture to promote transparency and their determination to address inadequacies in their accounting sector, Finally, a case study will be carried out to highlight the differences between pre-transition standards and IPSAS. The study will help to draw conclusions on whether or not the new standard is an improvement over the old one.

Using the framework described above, this paper aims to look at **IPSAS implementation and determine if its implementation, namely the switch from traditional cash based accounting to a more progressive accrual based accounting standard, such as IPSAS, is associated with an improvement in the quality of the financial statements.**

It is important to provide answers to the question on whether or not the implementation of IPSAS has enhanced the quality of financial statements. However, the following points should be noted. Firstly, IPSAS implementation is still an ongoing process in many organizations and countries, particularly in the developing world (Chan, 2006). Secondly, it is important for these organizations and countries to be sure that the new changes, which in general require an allocation of both financial resources and dedicated personnel, are indeed an improvement over the previous standard they are moving away from (Torres, 2004). It should be emphasized, that, as any accounting framework, IPSAS has its shortcomings. Identifying these shortcoming, evaluating and contrasting them to the positive elements of the new standard is crucial in deciding on whether a specific specific organization or country should implement it or not (Torres, 2004).

This paper aims to make a comprehensive analysis of the transition stage that many organizations have either undergone in the past or are still going through now, and evaluate the impact that this transition has had on the accuracy and reliability of the financial data, namely whether the transition has enhanced the quality of the financial data or not. This will be done through a case study; the paper will look at the statements of some organizations during the transitional stage, namely ITER (International Thermonuclear Experimental Reactor), WHO (World Health Organization) and UNICEF (United Nations Children's Emergency Fund). Subsequently, an analysis will be done on whether the financial data obtained after the implementation is more reliable and reflects the entity’s financial reality more accurately than the pre-implementation financial data. The transition data will provide information at a specific point in time when the entity has provided the statements under both IPSAS and the previous accounting standard. This make it possible to make a side-by-side comparison and highlight the differences between the two standards. The analysis of the case study will be helpful to indicate whether the implementation of IPSAS has been beneficial or not. In pursuit of this conclusion, both comparability of financial statements across countries that have implemented IPSAS and the reliability of the information that has been provided under it shall be examined. This analysis will also help to evaluate the progress made in reaching the goals of comparability and congruence.

The paper will rely on a number of primary and secondary sources. Initially, an analysis of the benefits and shortcomings of both cash and accrual accounting will be made. This analysis will be based on relevant literature, including Ernst and Young or PricewaterhouseCoopers articles detailing the differences between the two, as well as more extensive published papers that look specifically at the impact that the two accounting methods have had on public sector accounting. A conclusion will be reached in this section on whether or not accrual accounting is, as a whole, theoretically and practically a better option than its predecessor.

Next, the paper will investigate the impact of IPSAS implementation on the accounting quality of the European public sector and supernatural organizations. IPSAS and public sector accounting has always been a topic of major interest and therefore a large amount of research is available. The main sources used in this paper to gain insight into IPSAS implementation in supernatural organizations, particularly the World Health Organization (WHO), will be PwC and EY research, World Bank articles on public sector accounting, WHO reports and statements detailing its transition phase, and IPSASB statements. The guidelines and objectives laid down in these statements regarding the transition process will be evaluated to determine the impact of this process on the financial statements and whether its purpose has been reached or not. At the same time, individual cases of IPSAS implementation across Europe will be subjected to detailed examination. This will be done on the basis of numerous reports on transitioning countries such as Romania, Malta and the Netherlands.

The primary sources used in the case study are the financial statements issued by ITER, WHO and UNICEF in their corresponding transition year. Reports issued by the organizations on the transition process, the reasoning behind it and the benefits and challenges faced during implementation will also be referenced. The year that the case study will look at will be the transition year for each organization: 2008 for ITER, 2012 for UNICEF and 2012 for WHO. By looking at the transition process and the effect it has had on the accounting numbers of the three organizations. an understanding can be reached on the impact that IPSAS has had on supernatural organizations

Overall, the paper finds that the implementation of IPSAS has ultimately been beneficial to both supernatural organizations and public entities. Cash accounting was considered adequate in the past as both these entities had a narrow scope of activity. However, the expansion of the supranational organizations and the changes in the nature of their activities led national governments, which contributed to their funding, to demand detailed and accurate reporting on how their money was spent. Cash based accounting failed to provide such information (Capalbo & Sorrentino, 2013). At the same time, reports done under cash based standards could not provide details about the general situation of the entity and its operations, which was deemed unacceptable (Bergmann, 2012). Similarly, governments are currently held more accountable about the way they are spending public money and the efficiency of public expenditures. Especially after the recessions in mid 2000s, the reliability and comparability of governmental financial statements has been deemed extremely important (Schroeder et al, 2013). IPSAS provides an improvement over previous cash standard accounting system in both areas.

This study has a few implications for public sector accounting. Firstly, accrual based accounting is deemed as the better choice for most public entities as it provides a better foundation for the financial statements than the cash based accounting standards. Secondly, supernatural organizations should almost exclusively use accrual accounting as it provides a better overview of their financial reality. It also enables the contributing countries to have a clear picture of the actions and operations of the relevant entity. As such, the paper recommends the implementation of IPSAS as a quantities and qualities improvement over previous accounting standards.

Theoretical Framework

In order to thoroughly tackle the thesis question, some key concepts have to be defined.

An accounting conceptual framework is a system of ideas and objectives that leads to the establishment of a consistent set of rules and standards (Picker et al, 2013). Its most outstanding example is the creation of IFRS by the International Accounting Standards Board, which providis a clear set of principles and rules that companies in the private sector follow to improve their reliability, relevance and comparability. The framework implemented by the IPSASB aims to achieve a highly similar goal; facilitate transparency in the public sector by setting up guiding rules and principles IPSAB, 2016).

Governmental accounting is the process of recording, analyzing, summarizing, communicating and interpreting financial information about the government. It has five main purposes as defined by the World Bank:

- The government should be able to use the framework in a timely, efficient and reliable manner to conduct its financial business, and it has to be subject to the necessary controls.
- The framework should allow for easily accessible records, both accounting and documentary, in order for past transactions to be looked at and identified.
- It should provide periodic financial statements that have relevant information and provide a basis for both accountability and decision making.
- To maintain financial records suitable for budgetary control, internal control and the needs of auditors.
- To provide means for effective management of government assets, liabilities, expenditures and revenues.

IPSAS will be evaluated through these five criteria; looking at the past accounting statements under the previous standard and then making a judgement on whether or not IPSAS does a better job at fulfilling its role as a public sector framework (World Bank, 2012).

Cash based accounting is a framework that looks at the cash that comes into the organization and the cash that goes out of it (inflows and outflows), not at what expenses or incomes have been incurred in the accounting period. An accrual accounting framework looks at the expenses and income that has been incurred in the current period, and recognizes it all in the financial statements. In most cases, this does not correspond with the cash flows, as expenses that have been incurred at the end of the accounting period might be paid in the next one, and receivables for services that have already been rendered (revenue has been earned even though no money has been received yet) can be received from the debtor at a later date (PWC, 2013).

The quality of the financial statements refers to the degree at which the financial statements being looked at reflect the financial reality of the entity. In order to investigate this, the paper will mainly look at the reliability and relevance of the financial statements under IPSAB. Reliability in this context entails the need to determine whether or not it is possible to verify the information in the financial statement using other methods, whether the information in the statements is represented faithfully (they represent the reality of what occurred in the financial period) and the neutrality of the statements impartially (that is, whether or not there are bias in the statements, and whether or not an independent individual would come to the same result as the financial statements that the company issued) (Picker et al, 2013). Relevance concerns the predictive value (whether or not the statements help to understand and make predictions about what will happen in the future with the entity) as well as the feedback value (whether or not we can confirm information from other sources using the financial information provided in the financial statements) and timeliness (whether or not the information in the statements reaches the user in time for it to make a difference in the decision-making process) (Picker et al, 2013).

All three organizations under examination had different accounting standards in the past. Some attributes of these standards can affect the numbers as well, not only the change from cash based accounting to accrual based accounting (for example, a change in the valuation of assets from historical cost to fair value would affect the value of the assets). As such, an overview of the previous accounting standards is needed.

Both UNICEF and WHO used an accounting standard called UNSAS (United Nations System Accounting Standards). This standard has a few key differences compared to IPSAS. Firstly, UNSAS is cash based, which means that transactions are recorded on a cash basis and the entry is made when the cash is received. Correspondingly, it also recognizes the contribution on a cash basis, which means that a contribution is recorded when it is received. This is different from IPSAS, which records contributions when the agreement is signed. Asset recognition is also different. UNSAS expenses inventory when it is purchased, doing the same for property, plant and equipment (UNSAS, 2007), in contrast to ISPAS, which capitalizes both plant and inventory intangibles assets. Finally, under UNSAS the intervals between the issuing of financial statements differed, for example, WHO had to ask for an audit once every two years, whereas IPSAS requires annual financial audits (Sutcliffe, 2009).

ITER used PRMR (Project Resource Management Regulations) as their accounting standard before making the switch to IPSAS. PRMR also uses cash based accounting and bears much resemblance to UNSAS, with the main differences being extra guidelines to account for the organization's nature, for example having the requirement to perform an audit every year and contribution to be recognized earlier (ITER, 2007).

Cash Based and Accrual Based Accounting

The main difference between IPSAS and other public sector accounting standards is the emphasis on accrual accounting over cash based accounting. In this section the main differences and the benefits of both will be addressed, both in a general sense and specifically relating to public sector accounting.

Cash basis is defined by two main principles: the revenues have to be reported when cash is received and the expenses have to be reported on the income statement when cash is paid out. Cash accounting is seen as advantageous due to its simplicity; it is easy to implement and easy for individuals with no knowledge of accounting to have an overview of what is happening. The numbers in the statements represent the cash coming in and out, nothing more (Picker et al, 2013). Many organizations, especially small businesses, can implement it easily, with no need for individuals with knowledge of accounting. At the same time, it does not require specific software or resources for its application (Picker et al, 2013). Consequently, the implementation costs are very low. Overall, cash based accounting is sufficient and possibly preferable for small entities, with a low number of transactions that are either paid or received immediately or soon after, and within the same accounting period (Warren et all, 2007).

However, cash based accounting has a few shortcomings. Firstly, its simplicity makes it rather short term oriented. For example, an entity can rack up expenses and not pay them, showing a positive outlook on the income statements at a time when, in the long term, these expenses have to be paid and the entity is in a much worse financial situation than its statements show. This leads to a second shortcoming, namely the discretion of an entity operating under cash based accounting management to avoid paying expenses with the aim of showing the entity in a better, short-term situation and putting it, financially speaking, in a better light to the stakeholders than it actually is (Picker et al,2013).

In contrast, accrual accounting is based on the principle that the income statement reports every expense incurred and revenue earned in the current period. This means that a revenue earned in December, but for which no money has been received yet, will still be recognized in this period. This provides the reader of the financial statement with a better overview of the reality of the entity, because the reader knows how much revenue was earned and how many expenses were incurred during the said period. Besides, this accrual accounting gives the management a better overview of the entity's financial resources, and as such allows for a better decision making process (Picker et al, 2013). Additionally, in contrast to cash based accounting, the accrual method does not allow for management discretion, because if an expense is incurred it will be recognized, regardless of having been paid or not. This means that, if management is following accrual accounting rules, expenses and revenues will be disclosed to the reader of the financial statement when they have been earned or incurred. Consequently, there is less room to mislead the reader if the framework is followed properly: there is less opportunity for payment of expenses to be postponed to show a better overview of the entity. A payment being delayed until next year would still be shown in the financial statements, despite no cash outflow occurring yet (Warren et al, 2007).

The biggest shortcoming for accrual accounting is the accuracy needed when recording transactions, namely the obligation of the management to record an obligation when they first learn of it, not when the invoice is received or the payment is made. Under such circumstances, it is hard to confirm or check the accuracy of such recordings. Besides, it is significantly more complex than cash accounting, and some knowledge of accounting is needed to understand what is going on: for example, why the operating profit in the period does not correspond to the cash received in the same period (Christiaens et al, 2008).

A comparison can be drawn on the basis of the aforementioned properties of the two accounting systems. Accrual accounting is generally considered the better and more reliable of the two, because it better reflects the reality of the firm, the effects of actions on the firm both in the short term and long term and the realization of the current period (Kwon, 1989). As a result, accrual accounting has been widely adopted as the better of the two options. This holds true in most cases. The main advantages cash accounting boasts of is its simplicity and the crucial need for understanding accrual accounting when running large entities (Blondal, 2003).

More specifically, cash basis is easy to carry out and is easy to understand and verify, which means that the information is more accessible to individuals and it is easier for the reader or auditor to verify the individual items. This is, by and large, not the case with accrual accounting: the space for managerial discretion is much larger. If an expense is incurred and the amount to be paid is known, the manager has an obligation to put it on the books. However, it is not easy to verify whether or not this is done on time, and, as such, there is space for a manager to maneuver and choose whether or not an expense or income should be recognized. Both public and private sector try to solve this by using control mechanisms. Especially in supranational organizations, this seems to be quite effective, because due to the highly selective hiring process and the monitoring and auditing systems in place, the manoeuvring space of the manager is diminished (Nicolăescu, 2013). Therefore, it is safe to say that, especially in the public sector, accrual accounting proves to be much more effective and reliable than cash based accounting.

Impact of IPSAS implementation: Europe

Historically, the public sector has been using cash-based accounting. This practice was eventually dropped by the private sector with the implementation of US GAAP in the United States and IFRS in Europe in the early 1990s. However, public entities did not make the switch, choosing to keep using the local accounting framework already in place. This proved to cause problems due to the nature of governments aiming to show success, and the freedom and discretion enjoyed by governmental accountants due to lack of rules applying to them. This undermined the integrity of the reports (Sutcliffe, 2003). Therefore, starting in 1997, IPSAS began being adopted as a uniform standard with the aim of tackling the aforementioned issues. Having a framework approved by an outside specialized organization is considered more impartial and serves to assure financial statements readers that financial information is reliable due to its compliance with a certain proven standard.

As of right now, IPSAS has been implemented in most European countries and is slowly being implemented in the developing world. There are a few governments, including Australia, Canada, New Zealand, United Kingdom and the United States of America, that have implemented a standard that is similar to IPSAS in order for the public sector accounting to be more cohesive with the local GAAPs used in the private sector (Bellanca & Vandernoot, 2013). This paper will focus on the effects of the new standards implemented in Europe and European-based supranational organizations.

Europe has been transitioning from the local public sector accounting frameworks to IPSAS since the early 2000s. To a large extent, this was due to the inability of the cash based accounting in helping governments to run efficiently (Bellanca & Vandernoot, 2013). The accrual based accounting framework, namely IPSAS, was an attempt to make the government more efficient, and, at the same time, provide the readers of the financial statement with more accurate and reliable financial information.

In Spain, the adoption of IPSAS was initially met with resistance, as the previous system was deemed good enough. However, over time, the advantages of IPSAS became apparent, because it allowed comparisons with both other European countries and private companies in Spain that were already using IFRS. Thanks to the convenience associated with the harmonization component, IPSAS was accepted and legitimized in Spain, and overall its implementation is considered a success and a big improvement over standards used in the past (Brusca 2013).

There are cases, such as Malta, where IPSAS is adopted as an alternative to the status quo, which is which was deemed to not be working properly. Malta introduced an accrual based accounting system in 1999 and used a hybrid accounting system until 2011. This system was not very effective, leading to confusion and the accounting information being seen as unreliable. Therefore, in 2011, following some pressure from the European Union and other organizations, the Maltese authorities decided to fully implement IPSAS. The transition phase was smooth because the previous experience with the application of the accrual system had made everyone aware of how the new system worked. Besides, the Maltese business community really valued having a system that was internationally accepted. This led to the full-fledged application of the IPSAS in Malta (Jones, 2015).

A shift to IPSAS took place in Romania, too, where the process for introducing the accrual based accounting in the public sector started in the early 2000s. Romania opted to totally implement the new standard for the budgeting process, as well as for its internal and external accounting. The transition to IPSAS was concluded in 2006 when all of Romania's statements were issued in full compliance with its rules. This switch was considered a success with the new Romanian accounting system making a leap forward for both internal and external users, on the basis of providing more detailed information for both understanding past decisions and making new ones (Tudor, 2006).

It should be noted, however, that the public sector has its inherent shortcomings that affect the accuracy and reliability of its financial statements. A major shortcoming is the policy objectives not being formulated in a measurable way in terms of effects and indicators (Van Der Hoek, 2005). In the Netherlands, accrual based accounting systems have been used for the past few years. This has proven more effective than the previous cash based system. However, the incohesiveness between the budgeting being done on a cash basis and the statements being on an accrual basis is still there. This leads to these statements not being able to provide sufficient insight into the goals, and to the relationship between expenditures and performance not being clear, as it is almost impossible to be able to recognize the expenditures of a project , especially during a change of government (Van Der Hoek, 2005).

As a whole, the switch from the current standards into IPSAS was initially met with resistance in most European countries due to the long-standing familiarity with the old system (Illie & Miose, 2012). However, as the benefits of IPSAS became increasingly clear, its implementation started gaining support. At the current date, it has been efficiently and successfully implemented by most developed European countries, and its benefits over the old system are constantly highlighted.

For a large number of supernatural organizations, IPSAS has become a requirement. One of them is the World Health Organization (WHO), which began the adoption of IPSAS in 2006, and completed its transition in 2012 (WHO, 2013). WHO transition reports attributed some key advantages to IPSAS and accrual accounting as a whole, with three main improvements being identified. A primary advantage is the management's ability to have increased control over and a better overview of the organization's activity. This insight allow for increased internal control, because IPSAS requires additional internal operational and financial controls to make sure that the new accounting requirements are met (WHO, 2013). A key example would be the requirement to recognize accurately the items of Property, Plant and Equipment in its financial statements. This means that WHO has to collect data to make sure that its assets are properly managed as well as properly depreciated over their useful life. This is a key improvement because internal controls are key to any accounting system; they provide not only assurance to management that the numbers they use to forecast the future are reliable, but also a system through which fraud or wrongdoings can easily be detected. An enhanced internal control system is undeniably an improvement. The application of IPSAS has definitely a positive outcome in this aspect (WHO, 2013).

The second advantage is the enhanced comparability and consistency that IPSAS provides. By aligning with other supranational standards, WHO is able to report its results on a more consistent basis, thus allowing comparisons from year to year. At the same time, it creates the possibility to compare WHO results with those of other supranational organizations, especially inside the UN. This, in turn, enables the document readers to have increased insight into the efficiency and methods used by WHO to manage and allocate its funds (Toudas et al, 2013).

Lastly, IPSAS allows for improved decision making by senior management. As the standard provides more comparability, the allocation of resources among regions and the evaluation of priorities become significantly easier and more reliable. Better oversight over the organization's long and short-term liabilities also helps the management to make better decisions (Toudas et al, 2013).

Nevertheless, it is worth noting that WHO incurred significant cost when implementing IPSAS. A special body was established in WHO to assist with IPSAS implementation and other UN institutions contributed to the successful outcome of the process. Whether or not the cost incurred justifies the benefits remains to be seen, However, the consensus is that, at least in the long term, it will provide significant advantages.

Hypothesis Development

There has recently been a clear trend of both governments and supranational organizations switching from a cash to an accrual based accounting framework. Using the literature provided above, a hypothesis will be constructed on whether this transition has been beneficial or not.

Overall, accrual accounting does seem to fit large organizations better than cash based frameworks. There is constant indication that as the organization expands and has to account to more than just one or two individuals, a move into accrual accounting is preferable. This is due to the information that accrual accounting requires on the balance sheet, such as unearned revenues or pre-paid expenses. Such items provide crucial information to the reader of the financial statement who does not have direct involvement in the running of the entity, with the information being both relevant and useful in explaining the current position of the entity and its outlook (Prakash & Sinha, 2013).

At the same time, the IPSAS implementation both in Europe and supernatural organizations has been a successful process (Bellanca & Vandernoot, 2014). The reports from these organizations display that IPSAS provides a more modern accounting framework, despite the costs associated with the implementation process due to the costs associated with the implementation of the framework, for example training staff and bringing in experts to check and help draft the new statements in accordance with the IPSAS guidelines. It is evident that the information that IPSAS provides adds to the comparability of the entity, allowing comparisons to be drawn between the entity in question and other organizations that use IPSAS as well.

Judging from the literature provided above, it is expected that IPSAS will lead to an increase in quality of the financial statements. This is both due to accrual accounting seemingly working better for larger organizations, under which most supernatural organizations fall, and the success that it has had in Europe. Overall, the framework will be judged based on the World Bank criteria of what makes a good public sector accounting standard, namely the timeliness of the information, its relevance, the impact it has on internal and external control, and finally, the ability of the framework to provide information which the management can use to both forecast the future and use as a basis for decision making.

The literature gives a clear indication that the timeliness of the information is one of the clear advantages of accrual accounting, because the information is provided in such a way that it indicates to the reader what funds have been spent for the current period and what has been spent for the upcoming period, as well as what costs have been incurred and not paid yet. This information impacts the decision making process if received at the right time. As such, accrual accounting should have the edge when it comes to timeliness.

In terms of relevance and decision making, the information provided has to be important to the reader, and provide a basis for the decision making process of the management. From a theoretical point of view, accrual accounting should be better, as it provides information that affects future decision (such as what expenses have been covered for the next period). This information is by definition relevant, because any information that can be used in the making of decisions important to the management. Internal and external controls should be looked at in a case by case basis. However, there is ground for cash based accounting to provide a better basis due to the fact that every entry has a paper trail (for example receipts, bank payments) and as such it is easy to confirm the transaction (World Bank, 2012). In terms of upper management supervising into what lower level managers and confirming that their duties are performed correctly, accrual accounting could be considered better, because it provides a more detailed overview.

Therefore, the hypothesis to be investigated in the case study is:

<u>The implementation of IPSAS, and therefore the movement away from a cash to an accrual based accounting standard provides substantial improvement in the quality of the financial statements issued by the entity.</u>

Methodology

In order to evaluate the effectiveness of the IPSAS implementation in the public sector, a case study will be conducted. Firstly, the financial statements and items of supranational organizations will be examined before the implementation of IPSAS. Afterwards, the transition year will be analyzed and the individual items in the statement under the old accounting standard and IPSAS will be examined. Notable changes will be discussed, and, finally, a conclusion, based on the impact that the switch in accounting standards has had on the financial statement, will be presented.

Three individual supranational organizations will be looked at for the case study: ITER (International Thermonuclear Experimental Reactor), WHO (World Health Organization) and UNICEF (United Nations Children's Emergency Fund). Each of these three organizations had their own accounting standard before, which was already were discussed in the theoretical framework. The main advantages to choosing these organizations was the recent date of IPSAS implementation; ITER adapted IPSAS in 2008,UNICEF in 2012 and WHO started the transition in 2006, achieved partial implementation in 2010, and finally, fully implemented the new standard in 2012. Consequently, financial data was readily available. At the same time, ITER is a research institute with a budget that has remained constant in the years of implementation, with no major nations have joined or left it. UNICEF and WHO statements provided the most information in their statements due to their data not being sensitive (when compared to an organization such as NATO). Therefore, it is more likely that the differences between the two years can be attributed to the impact made by the change in accounting framework, as contrasted to the years when major contributions changed.

The specific statement under investigation is the balance sheet, which provides information about the assets and liabilities of the entity. Due to the nature of cash based accounting, the liabilities should be much lower under the previous accounting standard then under the new one, which should recognize expenses that have been incurred but not paid yet. Assets should also rise accordingly, due to the fact that receivables and other amounts, which have not been obtained yet, but have been promised as donations or earned at an earlier date, are recognized under accrual accounting earlier than under cash based accounting.

Adding onto this, during the transition years, all three organizations have provided the data for both the previous standard and IPSAS, which allows for an even more accurate comparison to be made between the two. A qualitative analysis of the figures provided under each framework will be made to determine what each represents and what causes the differences. Once the differences have been highlighted, the benefits and costs of the transition to IPSAS shall be weighed against each other, and, ultimately, a conclusion will be reached on whether or not the transition to IPSAS was beneficial to these three organizations.

ITER: A Case Study

The first case study that will be looked at in this paper is ITER (International Thermonuclear Experimental Reactor), an international nuclear fusion research and engineering project. Before the implementation of IPSAS, ITER used PRMR, a cash based accounting standard tailored to the organization. It made the switch to IPSAS in 2008. The statements below are excerpts from its balance sheet looking at the assets and the liabilities of the organization.

Figure 1: Assets of ITER under IPSAS and PRMR (ITER, 2008)

Assets	PRMR Published 31/1/2007	IPSAS Reinstatement 31/2/2007
Current Assets	**51,262,502**	**52,871,055**
Cash and cash equivalents	59,334,520	48,512,721
Receivables	1,702,667	1,767,041
Other current Assets	1,275,315	2,410,137
Deferred Charges		181,156
Non - Current Assets	**10,265,974**	**40,572,383**
Fixed Assets	10,265,974	40,572,383
Other financial assets		
Total Assets	**61,528,476**	**93,443,438**

Figure 1 shows the assets under the new IPSAS standard and the old PRMR one. The current assets have minor differences, which do not appear to be of much significance. There is a small decrease in cash and cash equivalents and an increase in other current assets; this is due to a few fixed interest deposits in banks being reclassified as investments (in this statement classified under other current assets). Deferred charges are the budget expenses undertaken in the calendar year, whose acquired good or service corresponds to the following year. This includes rent, subscriptions, insurance, license fees and equipment maintenance. This entry in the statement of financial position is there only under IPSAS because accrual accounting attributes expenses to the period for which the expense was incurred. This is a big difference from PRMR and cash based accounting, as it would put the expense under the previous year, when the expense was paid. There is also a major difference in the non-current assets, with the IPSAS restatement having almost four times the value compared to the previous standard.

The fixed assets that the statement refers to are the property, plant and equipment as well as the intangible assets. The difference in intangibles is quite small, whereas in plant and equipment it is considerably large. This is mainly due to IPSAS requiring the fair value method to be used, whereas PRMR evaluated everything at cost. Depreciation is also calculated differently under IPSAS, resulting in the numbers being so different.

Even though this is not related to accrual and cash accounting, it does illustrate that there are major differences between IPSAS and the previous model, and gives an idea of how much the application of a new accounting standard can impact the statement. The assets being higher imply that the liabilities are higher as well (since public sector organizations do not usually have any equity). That is the part of the statement that is most impacted by the switch to IPSAS.

Figure 2: Liabilities under IPSAS and PRMR (ITER, 2008)

Liabilities	PRMR Published 31/1/2007	IPSAS Reinstatement 31/2/2007
Current Liabilities	**51,262,502**	**38,675,185**
Payables	51,262,502	36,758,712
Employee benefits		1,916,473
Non - Current Liabilities	**10,265,974**	**54,165,481**
Long-term liabilities	8,009,974	13,593,097
Deferred Revenues	2,256,000	40,572,383
Total Liabilities	**61,528,476**	**92,840,666**

Figure 2 shows the liabilities and equity under the new IPSAS standard and the previous PRMR standard. Here there is a rather large difference in both the current and the non-current liabilities. Under IPSAS current liabilities decrease and the non-current liabilities increase in value by almost five times. The difference between the IPSAS assets and liabilities is shown under equity, indicating an increase of equity of 602 773 during the financial year.

The payables in the table is the amount to be paid back to the member countries that made larger contributions than were actually needed by the organization. This number is smaller under

IPSAS, the reasoning being that some payments incurred in the previous period have still to be paid. Consequently, the amounts of money in excess were lower than the amounts reported by the previous cash based standard (PRMR). In this case, having an accrual based accounting standard is significantly beneficial to the institution, because after paying the payables, the institution will not pay the contributors back the amount that is in excess at the current point in time. The previously incurred expenses will be paid for with the funds of the previous period. Such payments will be accounted for when contributions are returned.Therefore, the amount returned would be the excess contributions minus the payables that have been incurred in the previous period. Under the old cash based accounting, this would not be the case; the full contribution would be returned and payables would have to be paid with current funding. This significantly hindered the ability of the institution to run efficiently, because in one period the institution might have excessive funding while in the next one such funding might not be enough. In this aspect, having an accrual based system in IPSAS is definitely more appropriate than having a cash based standard.

The other major spike in liabilities is the new deferred revenue under IPSAS. This are the contributions spent towards the acquisition of assets. If the assets are sold again or are fully depreciated, the residual value of the asset will be returned to the members. As such, this falls under deferred revenue. Under PRMR, this value was really low, because only the money that would be sent over in the next few periods would be recognized; the long term liability would not, due to the fact that a cash outflow would not be expected anytime soon. However, under accrual accounting, the liability is recognized when the entity knows of it. In terms of significance to the financial statement , it does provide the reader with an overview of the long term liabilities of the institution, and as such, would be more beneficial than the previous cash based accounting system.

In order to find out which of the two standards provides the reader with information that is both more useful and accurate, the two have to be compared and evaluated under the criteria defined by the World Bank.

Timeliness refers to the user of the statement obtaining financial information in the time that it can still make a difference, IPSAS seems to take the edge. This can be seen through the addition of accounts, such as "Deferred Charges", which let the user of the statement know about payments that have been made even though no cost has been incurred yet. This is useful information to have, because it provides the reader with a better overview of the current period (since the expenditures recognized for it are the ones that have actually been incurred in that period) and the next period (now the reader is aware of the expenditures that have already been covered). With the timeliness improved and the reader getting information ahead of time, the new period can be forecasted more accurately. Management can use this information when deciding the next period's budget. Therefore, having an accrual accounting framework, such as IPSAS, in place improves the statement by providing information when it is still relevant to the reader.

Relevance should be taken into account when evaluating accounting framework. It refers to the ability of the information to provide a basis for decisions-making. When evaluating the two systems, the usefulness of the information is has to be taken into account. The general distinction between the two frameworks is the simplicity of cash based accounting contrasted to the complexity of accrual accounting. Accrual accounting adds more items, such as deferred charges, at a cost of increased crowding in the statement of financial position. However, in the case of ITER, the new information provided was relevant to the reader; having more information about the money owed to donors or money that has been paid on expenses of the new period can have implications for both the decision making and the evaluation of the entity. This information is relevant, and, as it is provided under accrual accounting but not cash based accounting, in the case of ITER, IPSAS provides more relevant information than PRMR.

The third major criterion is the need of the statements to be useful to management when making decisions. This implies that the information included in the statements has to be of some value to the management acting upon it. The best example from the ITER case is the deferred revenue, which increased substantially under IPSAS, due to the residual value of the assets that still have to be sold being accounted for. This is substantially more informing than the PRMR counterpart, which only looks at assets that have already been sold. Through IPSAS, the entity has a clear overview of how much money it has to return in the future. As such, when making decisions of what to sell in the future and what to upgrade, management can account for the portion of the sale that will be returned to the donor. Overall, this is an example of information being provided under accrual accounting that was not provided under cash based accounting, and which added substantial value to the decision making process of management. Therefore, accrual accounting fulfills this goal better than cash based accounting.

Looking into the possibility for internal, external and budgetary control, there are a few problems with both. On one hand, cash based accounting provides basic information, for example: if an asset was sold, the amount would go under the differed revenue liability account, as the amount to be returned to the donors. This makes it very easy to confirm, since a transaction would provide a receipt or a proof of sale. On the other hand, accrual accounting could be hard to confirm: residual values for assets can constantly change, some could be shown lower by management who could evaluate assets as having a residual value of zero at the end of their useful life when this is not necessarily the case. Overall, the possibility for internal control seems to be better under cash based accounting because it provides proof for every action undertaken, whereas accrual based accounting relies a lot more on managerial discretion, which is harder to check since, for some evaluations and actions, proof cannot be provided.

Overall, from the ITER case study we can conclude that accrual accounting provides a better base for an accounting framework than cash based accounting. It supplies information in a more timely manner, the information provided is more relevant, from which it follows that this information will indeed provide a better decision-making base for management. The only shortcoming where cash based accounting seems to be better is in the allowance for more control, as it requires less managerial discretion in determining the values reported on the statement of financial position. To conclude, the case study makes it clear that IPSAS makes a substantial difference in the financial statements and that this difference is positive with the accrual accounting providing the statement reader with a better and more accurate overview of the entity's financial situation than the cash based standard.

UNICEF: A Case Study

The second case study in this paper looks at UNICEF (United Nations Children's Emergency Fund), a UN program that provides humanitarian help to children in developing countries. Before the implementation of IPSAS, UNICEF issued its financial statements in accordance with UNSAS. It began the process of implementing IPSAS in 2008 and completed it in 2012. Below are excerpts from the balance sheet that show the assets and liabilities of UNICEF both under UNSAS and IPSAS for the year 2012.

Figure 3: UNICEF assets under UNSAS and the IPSAS reclassifications and adjustments (UNICEF, 2013)

Assets	UNSAS Balance	IPSAS Reclassification	IPSAS adjustments	IPSAS balance
Current Assets	**3,430,794**	**(2585)**	**437,614**	**3,865,823**
Cash and Cash Equivalents	2,731,441	(1436577)	3	1,294,867
Investments		1,217,190		1,217,190
Inventories	43,825		267,513	311,338
Contributions Receivable	330,306	223,592	(97008)	456,890
Other Receivables	325,222	(6181)	(242926)	56,115
Advances of cash assistance			496,177	496,177
Other Assets		19,391	13,855	33,246
Non-current Assets	**369,402**	**226,156**	**155,312**	**750,870**
Investments	350,000	225,883	25	575,908
Property and Equipment	19,402		155,206	174,608
Other Receivables		273	81	354
Total Assets	**3,800,196**	**223,571**	**592,926**	**4,616,693**

There are a few changes in the assets of UNICEF. First off, a large amount of cash and cash equivalents is reclassified as investments; this is due to the maturity of these term deposits being 90 days or longer, which IPSAS redefines as investments. There is a large increase in advances of cash assistance, as, under UNSAS these transfers were recognized as expenses when the cash was paid to the implementing partner of a project. However, under IPSAS and accrual based accounting, some of these funds, namely $496 million, were still considered assets until an expense is recorded when the implementing partner meets UNICEF project requirements. This is a major benefit of accrual accounting; it provides an overview of what has been incurred and what has not been incurred yet, and, as such, allows for an account to recognize this on the balance sheet, making the reader aware of the entity's situation. This could be advantageous for the decision makers who will have timely information about the investments made by the organization and will also be able to take this information into account when making future decisions.

Inventories are also adjusted by a reasonable amount. This is due to a large number of goods being still in transit and IPSAS recognizing these goods. In contrast, UNSAS does not recognize the goods until they have been obtained. Property, plant and equipment are also adjusted due to financial leases and capitalization being different under IPSAS. Contributions receivable are also significantly adjusted the reason being that UNSAS recognizes the pledges of donors. In contrast, IPSAS only recognizes enforceable agreements. This represents an improvement under IPSAS, as pledges made that cannot be enforced have a low likelihood of being paid, and as such, should not be recognized as receivables.

Figure 4: UNICEF liabilities under UNSAS and the IPSAS reclassifications and adjustments (UNICEF, 2013)

Liabilities	UNSAS Balance	IPSAS Reclassification	IPSAS adjustments	IPSAS balance
Current Liabilities	**910,035**	**223,571**	**(383174)**	**750,432**
Accounts Payable	328,687	(12488)	(196330)	119,869
Contributions Received In Advance	19,075	223,592	(222396)	20,271
Funds held on behalf of third parties	497,090	(11392)	(17059)	468,639
Employee Benefits	65,183		29,865	95,048
Provisions		12,175	496,177	12,175
Finance leases and other liabilities		11,684	22,746	34,430
Non-current Liabilities			**958,753**	**958,753**
Employee Benefits			891,584	891,584
Finance Leases and other liabilities			67,169	67,169
Total Liabilities	**910,035**	**223,571**	**575,579**	**1,709,185**

The liabilities under IPSAS and under UNSAS also show visible differences, with reinstatements and adjustments needed to be made. The accounts payable are the first one on the list, with an adjustment of almost 200 million. Under IPSAS a liability is recognized based on the delivery principle, which unliquidated obligations did not fall under.

Under IPAS a large amount of employee benefits was recognized and reorganized as a long term liability. This is because IPSAS recognizes employee benefits as net assets, which result in a proportional increase in employee liabilities as well. Contributions received in advance is similar as well, IPSAS recognizes them if the commencement date has not come to be yet, but an agreement has been made in the past. As such IPSAS recognizes them as liabilities till the date of the start of the agreement comes.

Overall, there are some major changes that occur when moving from UNSAS to IPSAS. To a large extent, these changes are due to a change from cash to accrual based accounting. There are substantial changes in what is recognized as a payable or receivable and the size. UNSAS takes a one size fits all approach, as it declares almost everything that the entity has paid or received, whereas IPSAS looks more at certain criteria individually, and only recognizes those receivables and payables that have indeed met the criteria.

WHO: A Case Study

The last case study concerns WHO (World Health Organization), which moved away from UNSAS and implemented IPSAS in 2012. They identified several challenges to the implementation, including the broad participation of the organization's personnel in the implementation process, the training needed, the time and resources required, and the budgetary implications of the process of shifting from cash to accrual basis. Despite these challenges, the implementation was completed on schedule. Again, balance sheet excerpts will be looked at, and the impact of the transition evaluated.

Figure 5: WHO assets under UNSAS and the IPSAS (WHO, 2013)

Assets	UNSAS 2012	IPSAS 2012
Current Assets	**3,342,157,763**	**3,731,342,127**
Cash and cash equivalents	1,184,358,413	643,516,528
Short-term investments	1,369,531,140	2,253,303,807
Accounts receivable	695,054,637	729,229,217
Staff receivables	12,263,937	16,710,890
Inventories	67,458,323	64,149,230
Prepayments	1,299,838	1,567,910
Other current assets	12,191,472	22,864,545
Non-Current assets	**518,090,743**	**302,388,912**
Accounts receivable	210,277,136	224,896,094
Long-term investments	266,323,581	34,833,438
Deposits	309,148	362,303
Property, plant and equipment	41,180,878	42,297,077
Total Assets	**3,860,248,506**	**4,033,731,039**

As in the previous cases, cash and cash equivalents have been largely reclassified, with a majority of them being declared short term investments due to the fact that their maturity date was longer than 90 days but shorter than 12 months. Long-term investments are changed accordingly.

Accounts receivable amounts have been modified to reflect the inclusion of some items, which were recognized as cash and cash equivalents under UNSAS. Adjustments have been made to the receivables. Under IPSAS, some contributions cannot be recognized until a commitment has been made, whereas UNSAS recognized them if there was a possibility of the pledge coming through. Inventories remain largely the same with the WHO being largely in possession of the medicines and the vaccines it develops. However, staff receivables change, as IPSAS and accrual accounting requires the recognition of both the current salaries and the employments benefits due to the staff in the future, This major benefit offered by IPSAS provides the reader of the statement with an overview of the resources that the entity is obliged to allocate cover such future benefits. There is also a spike in other current assets. This is due to accrual accounting recognizing goods that will be obtained in the future, for which the commitment has already been made.

Figure 6: WHO liabilities under UNSAS and the IPSAS (WHO, 2013)

Liabilities	UNSAS 2012	IPSAS 2012
Current liabilities	**1,557,105,408**	**1,982,542,049**
Contributions received in advance	86,329,879	100,728,551
Accounts payable	24,983,899	32,287,143
Staff payable	4,366,015	7,143,440
Accrued staff benefits	71,735,099	74,187,562
Deferred Revenue	317,034,710	457,640,785
Financial Liabilities	21,403,427	331,076,926
Other current liabilities	41,442,241	46,080,782
Inter-city liabilities	989,810,189	933,396,863
Non-Current liabilities	**1,143,721,498**	**1,128,521,685**
Long-term borrowings	21,912,231	22,725,204
Accrued staff benefits	911,532,131	880,900,388
Deferred revenue	210,277,136	224,896,093
Total Assets	**2,700,826,906**	**3,111,063,734**

Again there is significant difference in most short term liabilities, with the non-current liabilities staying almost the same. There is a major spike in accounts payable - this is due to cost being incurred having to be recognized under accrual accounting based IPSAS, however, if no invoice had been received, UNSAS did not require the recognition. This is another case where accrual accounting provides a substantial improvement, as the new statement shows the situation of the entity much more truthfully.

In terms of other liabilities, there is an increase in contributions received in advance. Some of these contributions are received before the agreement comes into effect. Under IPSAS, they are still considered liabilities until the agreement comes in effect. Staff payables recognizes benefits to be paid at a future date, providing the possibility for more accurate number under IPSAS. Financial liabilities also spike up, due to IPSAS requiring the entity to recognize the possible future loss in their financial instruments.

Overall, IPSAS provides much more insight into the future economic activities of the entity, including the payments to be made in future periods and recognizing the receivables deriving from enforceable agreements. The outlook of the entity is much clearer under IPSAS, and, as such, IPSAS is recommended as a better accounting framework.

Conclusion

The paper views the impact that the implementation of IPSAS has on the quality of the financial statements in both the supranational organizations and the public sector.

Firstly, the differences between cash based accounting and accrual based accounting were discussed. This was done by looking at the benefits and shortcomings of both system. The accrual accounting provides more explanatory power on the entity's financial reality and is, therefore, seen as the more reliable of the two, However, accrual accounting is associated with increased complexity, which makes it harder to understand by the average person and creates more room for managerial discretion. Nevertheless, especially for larger organizations, the benefits far outweigh the disadvantages and, consequently, its adoption is recommended.

The examination of IPSAS implementation in Europe has revealed a pattern of reluctance to change. To an extent, this is due to fears associated with shifting from a known to an unknown system and concerns over related implementation costs. However, once implemented, the transition process is not as hard as expected, and no country switched back to the previous system, demonstrating that the benefits of switching into IPSAS outweighed the drawbacks.

The ITER case reveals clear differences between pre and post IPSAS numbers. Overall, the new standard provides a more accurate picture of the entity, and a better insight into its obligations. Consequently, some decisions, such as those concerning payables to the donors due to excess funds, had to be reconsidered. Under accrual accounting, ITER had to account for payments that had not been made yet, though already incurred. There is a clear benefit in having IPSAS implemented because it provides the manager with the necessary information to make an informed decision, which would not have been possible under the old framework. Looking at the World Bank criteria for what constitutes a good conceptual framework, it is clear that IPSAS fulfils its role much better than its predecessor, and as such, its adoption has a significant impact on enhancing the quality of the entity's financial statements.

The two cases related WHO and UNICEF help support these conclusions. IPSAS offers a much clearer outlook of the entity's future, providing the reader of the statements with information about costs incurred and the contributions committed by donors. This is largely due to the accrual nature of IPSAS; the payables are more accurate showing all costs incurred, not just those for which an invoice has been received. At the same time, the guidelines for IPSAS make sure that the items of the financial statements are classified accurately, which means that investments are put apart from cash equivalents, employee benefits are not classified as liabilities and so on. This helps the management to have a good understand of how the entity is operating and be in a position to exert better control over its activity.

Therefore, we can confirm the hypothesis that IPSAS does indeed prove to be a better accounting standard than the cash based ones it replaced. Confronted with the criteria set up by the World Bank for a good accounting framework, IPSAS fulfils all the criteria better than its predecessor. The information provided under IPSAS comes to the reader in a more timely manner, the information provided to upper management is more detailed and allows for a clearer overview of what lower managers are doing, and the relevance of the information is higher due to the more detailed nature of the information, and provides for increased possibility to check on what the entity does correctly or incorrectly. Despite the internal control not being inherently better than cash based accounting, there are other methods to implement control mechanisms, such as hiring or segregation of duties, to make up for it. Therefore, for all these reasons, the information obtained under IPSAS is more useful for decision makers than the information provided under cash-based accounting frameworks.

Overall, there is significant evidence showing that IPSAS has a positive effect on the financial statements of entities in the public sector and supranational organizations. This is largely due to the shift from cash based to accrual based accounting. The findings of this paper support the growing trend of public sector entities and supranational organizations implementing IPSAS, which offers a better conceptual framework for substantiating managerial decisions and increasing financial statement quality by providing more relevant and useful information.

Limitations and Further Research

There are a few limitations to the paper that should be taken into account when discussing its findings.

Firstly, an accounting standard introduces much more than just accrual accounting. Even though a key difference was the change from cash accounting to accrual accounting, IPSAS also introduced a variety of new accounting techniques that were not used before, such as fair value in the evaluation of assets and intangibles. It is very possible that the differences in the numbers were affected by them; the increases in values of the assets could be explained with the new valuation method. It is possible this could also affect the payables. This form of omitted variable bias might have a minor influence on the differences in numbers.

Further research in the field could also be beneficial in confirming the reliability of the results. The study was limited to looking only at supranational organizations such as UNICEF, WHO or ITER, An examination of public sector entities might have been helpful to support the findings. This would add to the validity of the study, show that the chosen sample was not an outlier, and prove that the benefits and costs of implementing a framework such as IPSAS could be beneficial for the public sector as a whole. It would also be interesting to explore the implementation of IPSAS in government agencies around the world. As many developing nations are still engaged in the IPSAS implementation process, a point of further research would be to look at how these countries can benefit from those that have already completed the implementation process.

A very interesting aspect would be to investigate the relationship between IPSAS and budgeting. Most organizations, including WHO, have implemented IPSAS in their accounting section while retaining their budgeting on a cash basis. Therefore, there needs to be reconciliation in the financial statements to bring the budget in line with the accounting data. This challenge could be an interesting topic for further research.

Lastly, further research could be done to expand the scope of the investigation. Looking at longer periods of time, for example two to three years before and after IPSAS implementation would provide better insight into the impact of the new standard over time and collect data on how the standard has adjusted over such period.

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