

# Harmonization of IPSAS in Latin America: which stage is the Brazilian Public Sector Accounting in?

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## Abstract

This article aims to contribute to the visibility of the development process of Government Accounting systems in Latin America, especially Brazil's case. Therefore, from this point of view, it uses the methodology of interpretive research in accounting (Chua, 1964). Based on analysis of the period between 2008 and 2018, it concludes that Law 4,320/1964 needs to be updated; the Brazilian Public Sector Technical Accounting Standards (NBC TSP) represent the IPSAS in Brazil (translated and adjusted to local reality); the implementation of the Full IPSAS was applied to all Brazilian federation entities (Central Government, 26 States, Federal District and 5,570 Municipalities); the Handbook of Accounting Applied to the Public Sector (MCASP) is the main IPSAS guide; and, finally, the greatest difficulties faced by public accountants and managers are the lack of public workers, technology and training.

Keywords: IPSAS; Harmonization; Latin America; Brazil

## 1. Introduction

The economic crisis, which affected Latin America in 1980, was the hallmark of public administration reforms, mainly in public sector accounting systems in Colombia (Gómez & Montesinos, 2012) and even in Brazil. Latin America brings together most of countries of South America, Central and North America, only Mexico, totalizing twenty nations. The recipe for ending the region's economic crisis includes ten basic rules agreed upon in the 1989 Washington Consensus at the United States political and administrative headquarters. These recommendations were adopted by Brazil, Colombia and other Latin American countries.

The year 2007 was a relevant milestone in the harmonization of financial accounting for private companies in Brazil. Brazilian accountants slept with financial accounting influenced by the Financial Accounting Standards Board (FASB) and woke up facing the need to learn how to apply financial accounting standards issued by the International Accounting Standards Board (IASB). This change, which for the private sector was immediately radical, is in its early stages in the public sector since 2008, with the process of harmonization with the International Public Sector Accounting Standards (IPSAS).

Different from what happened in the Brazilian private sector, there are rules in the public sector, but there were no accounting routines, mainly the use of the accrual regime in the accounting records of assets and liabilities related to the administrative facts of the Public Administration. The Brazilian Public Administration is organized by the Union (central/federal government), 26 states (state governments), 5,570 municipalities (local governments) and the Federal District (the capital, Brasília).

Since 2008, in Brazil, the Accounting Handbook Applied to the Public Sector (MCASP) of the National Treasury Secretariat (STN) (<http://www.tesouro.fazenda.gov.br/-/mcasp>), based on the Brazilian Norms for Public Sector Technical Accounting (NBC TSP), integrates the Accounts Plan (PCASP) and the new Financial Statements (DCASP), in addition to being a guide for the implementation of IPSAS in Brazil, being a mandatory consultation for federal, state and municipal governments.

Considering the IPSAS harmonization process in Latin America, one has the following question: which stage is the Brazilian Public Sector Accounting in? The phenomenon to be investigated is the IPSAS harmonization process in Brazil between 2008 and 2018. The present study has a descriptive character and uses the methodology of interpretive research in accounting (Chua, 1964). It is also worth mentioning Institutional Theory's contribution, which in this paper support the dialogue with the adoption of IPSAS in Brazil. Therefore, it is not an exaggeration to say that it intends to describe to the change in the accrual accounting routines, mainly, the use of the competence regime. Thus, this article aims to contribute to the visibility of Government Accounting systems' development process in Latin America, especially the Brazilian case.

It follows from this perspective that, when dealing with Latin America, studying the current stage of implementation in Brazil is relevant for the following reasons: (i) it is the largest country in terms of population; Argentina, Bolivia, Colombia, French Guiana (France), Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela are the countries with the largest territorial extension (8,515,767,049 km<sup>2</sup>); (iii); estimated in 2018, the Brazilian population exceeds 208 million inhabitants; (iv) GDP is approximately \$ 2.08 trillion; (v) life expectancy is around 76 years for men and 78 for women in the region; (vi) the composition by age group (15 to 64 years) represents 69% of the total population and, finally, (vii) the ethnic-racial composition was formed by migratory waves (IBGE, 2019). In addition to the socioeconomic aspects of Brazil already cited, this research is justified because 51% of governments in the world are disclosing accounting information using IPSAS directly, indirectly or as a reference point (IFAC, 2018).

This research is divided into five sections, the first being this introduction. In the course of this study, the second will address the reform of IPSAS in light of the accruals and the background of the IPSAS harmonization in the Brazilian public sector will be addressed. In the third section will be detailed the methodology used. Subsequently, the fourth section will describe the IPSAS implementation process in Brazil. Finally, the future prospects on harmonization.

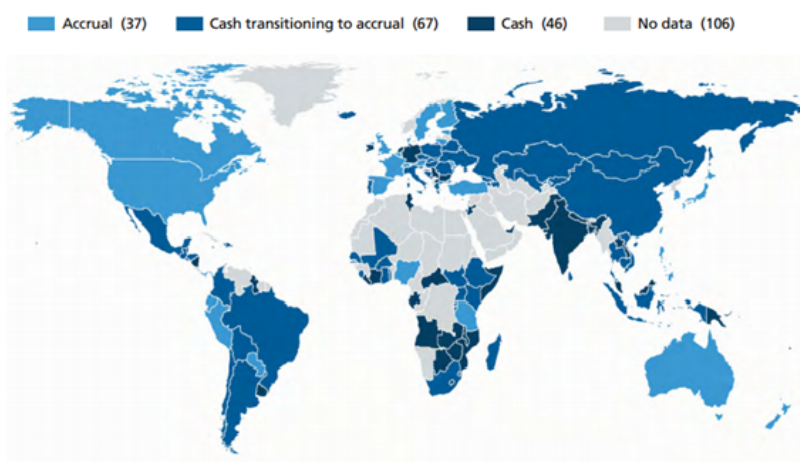
## 2. IPSAS accrual accounting reform and the history of harmonization in Brazil

Without going into the numerous meanders that the theme suggests since 1980, following the changes in New Public Management (MPM) and, in several countries, the recent trend of harmonization of IPSAS issued by IFAC on the basis of accrual accounting, the search for modernization of public sector accounting information has been encouraged by international bodies such as: World Bank (WB); International Monetary Fund (IMF); Inter-American Development Bank (IDB); Organization for Economic Co-operation and Development (OECD) (Gómez & Montesinos, 2012).

According to IFAC (2018), 25% of governments worldwide are reporting financial information on accrual accounting. This decision is contributing to the transparency and accountability of public sector accounting systems. Among the 150 countries analyzed,

37 (25%) are adopting "accrual", 67 (45%) are in transition from the cash regime to "accrual" (here is the case of Brazil, according to Figure 1), 46 (106) have no date for IPSAS implementation (see Figure 1).

Figure 1 Current Financial Reporting Basis (2018)



Source: IFAC/CIPFA (2018)

We believe that in the previous paragraphs, and from the analysis of Figure 1, the tendency of IPSAS adoption and implementation in several countries of the world was sufficiently demonstrated. The experience of some European countries with the adoption and implementation of IPSAS has been reported in many different studies (eg Benito, Brusca & Montesinos, 2007; Montesinos, Brusca, Montesinos & Chow, Rossi & Aversano (2013), Brusca & Montesinos, 2014, Dasi, Montesinos & Murgui, 2016, Jorge, Brusca & Nogueira, 2019).

Netherlands, Australia, Greece, Madagascar, Fiji Islands and others faced a lack of historical data, lack of support for software use and lack of public servants' accounting skills. Difficulties in the implementation phase of IPSAS in countries such as Germany, United Kingdom, Australia, Italy, Greece, Sweden, among others, are related to the use of other schemes for the public budget, not based on the accrual basis, poor qualified public servants and accounting information complexity. In addition to the factors already mentioned, the studies report that the non-applicability of the competence regime in the public sector of some European countries was also a challenge for the initial adoption of IPSAS in the context of Europe (Cardoso, Aquino & Pigatto, & Lima, 2016; Morás & Klann, 2018).

In Latin America, the harmonization of IPSAS, for example, in the countries of the Southern Common Market (Mercosur), composed of members Argentina, Brazil, Paraguay, Uruguay and Venezuela and the associated countries Chile, Bolivia, Peru, Colombia and Ecuador, and the adoption of "accrual accounting" will help in comparing public sector financial information. IPSAS implementation in Latin America (Benito, Brusca & Montesinos, 2007; Gómez & Montesinos, 2012; Cardoso, Aquino & Pigatto, 2014) is recent and, in the case of Brazil, research is still incipient.

The Brazilian Public Sector Accounting System evolution can be described, in summary, in three very distinct moments that marked the Brazil's history. In the initial stage, influenced by the "Royal Treasury" of Portugal (1808-1889) founded by Marques de Pombal in 1761, accounting was done based on simple match method. The stage of the "Proclamation of the Republic" of Brazil (1889-2007) introduced the double entry method (1914), the Public Accounting Code of the Central Government (1922) and the

Law 4,320 (1964), which reformed the public accounting in the perspective of the budgetary, financial, public accounting and industrial administration (Adde, Iudícibus, Ricardino Filho & Martins, 2014, Cardoso, Aquino & Pigatto, 2014, Costa, 2008). Finally, from 2008, the current stage of harmonization of IPSAS, through NBC TSP and MCASP, will be described and discussed in more detail in the course of this study.

Since 1914, Brazilian public accounting has focused on recording events involving public finances and budgeting on the basis of the mixed regime. Thus, prior to the implementation of IPSAS in Brazil, depreciation and amortization of a large part of public assets were not accounted for. In other words, in the context of the organizational environment of the Brazilian public administration, changing from the mixed accounting regime to accrual accounting is not an easy task due to the operational difficulties faced by public accountants and managers (Cardoso, Aquino & Pigatto, 2014, Lima & Lima, 2016, Morás & Klann, 2018).

The IPSAS harmonization in Brazil is at a transition moment to accrual accounting. Since 2008, the CFC, the STN, the Courts of Accounts, public agencies and entities are adapting to the new accounting procedures required by IPSAS. Before the implementation of the IPSAS in Brazil, it was necessary to train accountants and public managers, improve and adjust computerized systems, including a module for the subsystem of costs (Lima & Lima, 2016; Morás & Klann, 2018).

As mentioned in the previous paragraphs, there are some central elements that must be addressed so it will be clear how changes in organizational culture in the public administration are facing strong challenges related to resistance to change operational routines and to a lack of staff technical knowledge on IPSAS, NBC TSP and MCASP. In this context, public accounting systems' reform can be analyzed in the light of mimetic isomorphism in the context of Institutional Theory (DiMaggio and Powell, 1983, 1991). These seminal authors of the Institutional Theory contributed to help the interpretation of organizational changes dynamics (isomorphism). Thus, the theory may be applicable in the context of IPSAS adoption and implementation. It is also worth noting that changes in the rules and organizational routines of countries adopting IPSAS, changing local rules and routines to the international context, will have a period of uncertainty due to the initial implementation difficulties. In the next section will be presented the methodology adopted in the study on screen.

### 3. Methodology

Regarding epistemological classification criteria, Chua (1986) suggests three categories of scientific investigation: positivist, interpretative and critical. This study applied the interpretive research method in accounting (Chua, 1986). This methodological route was taken in an attempt to describe IPSAS adoption and implementation in Brazil between 2008 and 2018. Thus, a detailed analysis of the steps, facts and results of the IPSAS adoption in Brazil between 2008 and 2018 was carried out taking in consideration its historical and socioeconomic context and the organization of the Brazilian Public Administration.

Gómez & Montesinos (2012) state that in the field of public sector accounting, descriptive scientific research, as an example, the methodological procedures adopted in this study are relevant to the process of characterization of local experiences, allowing later comparison with other countries of the Americas Latina. In the context of this

research, the paper sought to describe and understand the context of IPSAS harmonization in Brazil between 2008 and 2018 and how these changes are influencing the Brazilian public accounting system.

The collection of documentary sources was carried out after consulting specific legislations, theses and dissertations which addressed the IPSAS theme in Brazil, thirty-two Brazilian Graduate Programs in Accounting (Table 1), CAPES scientific journals database (<https://www.periodicos.capes.gov.br/>), the CFC website (<https://cfc.org.br>), the STN website (<http://www.tesouro.fazenda.gov.br/mcasp>) and the IPSASB website (<https://www.ipsasb.org/about-ipsasb>). Finally, considering that the research is qualitative, the obtained information will be organized in the following way: the first step will be the reduction of evidence, the second the construction of evidence devices, and the third, the verification and consideration on the found evidences.

**Table 1. Postgraduate programs in accounting in Brazil (PPGCCs)**

Universities	UF	Brazil Region	PPGCCs (Theses and Dissertations)
UNB	DF	Midwest	<a href="http://ppgcont.unb.br/">http://ppgcont.unb.br/</a>
UFMS	MS	Midwest	<a href="https://ppgcc.ufms.br/">https://ppgcc.ufms.br/</a>
UFG	GO	Midwest	<a href="https://ppgcc.face.ufg.br/">https://ppgcc.face.ufg.br/</a>
UFRPE	PE	Northeast	<a href="http://www.ppgc.ufrpe.br/">http://www.ppgc.ufrpe.br/</a>
UFBA	BA	Northeast	<a href="http://ppgcont.criacaodesiteemsalvador.com.br/">http://ppgcont.criacaodesiteemsalvador.com.br/</a>
FUCAPE	MA	Northeast	<a href="http://fucape.br/cursos/mestrado Maranhão/">http://fucape.br/cursos/mestrado Maranhão/</a>
UFPB	PB	Northeast	<a href="http://www.ccsa.ufpb.br/ppgcc">http://www.ccsa.ufpb.br/ppgcc</a>
UFPE	PE	Northeast	<a href="https://www.ufpe.br/ppgcontabeis">https://www.ufpe.br/ppgcontabeis</a>
UFRN	RN	Northeast	<a href="http://www.posgraduacao.ufrn.br/ppgcon">http://www.posgraduacao.ufrn.br/ppgcon</a>
UFC	CE	Northeast	<a href="http://www.ppac.ufc.br/index.php/pt-br/">http://www.ppac.ufc.br/index.php/pt-br/</a>
USP	SP	Southeast	<a href="https://www.fea.usp.br/contabilidade/pos-graduacao">https://www.fea.usp.br/contabilidade/pos-graduacao</a>
USP/RP	SP	Southeast	<a href="https://www.fearp.usp.br/ppgcc.html">https://www.fearp.usp.br/ppgcc.html</a>
FIPECAFI	SP	Southeast	<a href="http://www.fipecafi.org/Principal/Mestrado">http://www.fipecafi.org/Principal/Mestrado</a>
PUC/SP	SP	Southeast	<a href="https://www.pucsp.br/pos-graduacao/mestrado-e-doutorado">https://www.pucsp.br/pos-graduacao/mestrado-e-doutorado</a>
FUCAPE	ES	Southeast	<a href="http://www.fucape.br/cursos/mestradocontabeis/">http://www.fucape.br/cursos/mestradocontabeis/</a>
FUCAPE	RJ	Southeast	<a href="http://www.fucape.br/cursos/mestradocontabeisrj/">http://www.fucape.br/cursos/mestradocontabeisrj/</a>
UERJ	RJ	Southeast	<a href="https://www.cepuerj.uerj.br">https://www.cepuerj.uerj.br</a>
UFES	ES	Southeast	<a href="http://www.cienciascontabeis.ufes.br">http://www.cienciascontabeis.ufes.br</a>
UFMG	MG	Southeast	<a href="https://cepcon.face.ufmg.br/">https://cepcon.face.ufmg.br/</a>
UFRJ	RJ	Southeast	<a href="http://ppgcc.ufrj.br/">http://ppgcc.ufrj.br/</a>
UFU	MG	Southeast	<a href="http://www.ppgcc.facic.ufu.br/">http://www.ppgcc.facic.ufu.br/</a>
UNIFECAP	SP	Southeast	<a href="https://www.fecap.br/mestrado/cursos/ciencias-contabeis/">https://www.fecap.br/mestrado/cursos/ciencias-contabeis/</a>
UNISINOS	RS	Southeast	<a href="http://www.unisinos.br">http://www.unisinos.br</a>
UPM	SP	Southeast	<a href="https://www.mackenzie.br">https://www.mackenzie.br</a>
UFPR	PR	South	<a href="http://www.prppg.ufpr.br/ppgcontabilidade/">http://www.prppg.ufpr.br/ppgcontabilidade/</a>
UFSC	SC	South	<a href="http://www.ppgc.ufsc.br/">http://www.ppgc.ufsc.br/</a>
UNIOESTE	PR	South	<a href="http://portalpos.unioeste.br/index.php/contabilidade">http://portalpos.unioeste.br/index.php/contabilidade</a>
UNOCHAPECÓ	SC	South	<a href="https://www.unochapeco.edu.br/mestrado-contabeis-adm">https://www.unochapeco.edu.br/mestrado-contabeis-adm</a>
FURB	SC	South	<a href="http://www.furb.br">http://www.furb.br</a>
UEM	PR	South	<a href="http://www.pco.uem.br/">http://www.pco.uem.br/</a>
FURG	RS	South	<a href="https://ppgcont.furg.br/">https://ppgcont.furg.br/</a>
UFRGS	RS	South	<a href="http://www.ufrgs.br">http://www.ufrgs.br</a>

Note: University of Brasília - UnB; Federal University of Goiás - UFG; Federal University of Mato Grosso do Sul - UFMS; Federal University of Bahia - UFBA; Federal University of Ceará - UFC; Federal University of Paraíba - UFPB; Federal University of Pernambuco - UFPE; Federal Rural University of Pernambuco - UFRPE; Federal University of Rio Grande do Norte - UFRN; Federal University of Espírito Santo - UFES; Federal University of Minas Gerais - UFMG; Federal University of Uberlândia - UFU; Federal University of Rio de Janeiro - UFRJ; Federal University of Paraná - UFPR; Federal University of Rio Grande - FURG; Federal University of Rio Grande do Sul - UFRGS; Federal University of Santa Catarina - UFSC; Capixaba Institute for Research in Accounting, Economics and Finance - FUCAPE; University of São Paulo-USP; University of São Paulo, Ribeirão Preto Campus - USP / RP; Foundation for Accounting, Actuarial and Financial Research - FIPECAFI; Pontifical Catholic University of São Paulo - PUC / SP; State University of Rio de Janeiro - UERJ; Fundação Álvares Penteado School of Commerce - UNIFECAP; University of the Sinos River Valley - UNISINOS; Universidade Presbiteriana Mackenzie - UPM; Universidade Estadual do Oeste do Paraná - UNIOESTE; Community University of the Region of Chapecó - UNOCHAPECÓ; Regional University of Blumenau - FURB; State University of Maringá - UEM; Units of the Federation (UF).

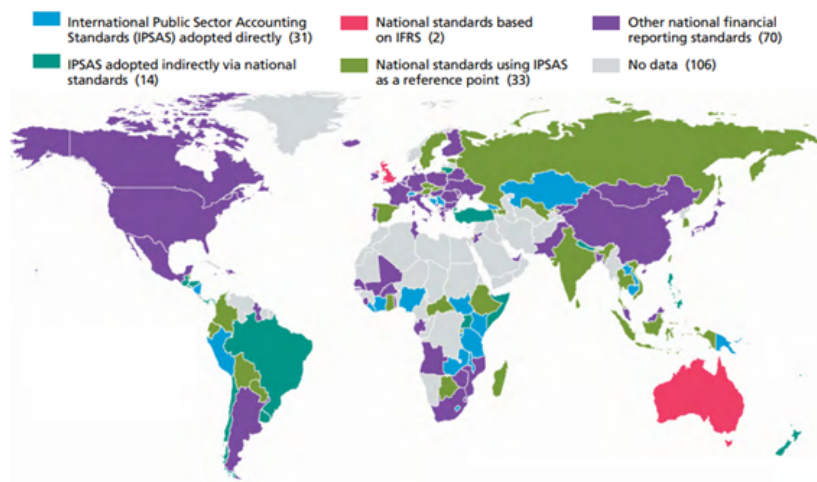
After completing the information collection stage, Law 4,320/1964 was identified as the main legislation in force and NBC TSP and MCASP are documentary and normative references for the implementation process, according to the Implementation Plan (PIPSP / STN). Finally, after studying theses and dissertations of Brazilian Post-Graduate Programs in Accounting (see Table 1), among the scientific studies that

addressed the theme of the implementation of IPSAS in Brazil, we highlight Lima & Lima (2016); Lima (2017), Lorini (2018) and Morás & Klann (2018). The information obtained will be addressed during the presentation of the results of this paper. In the next section the results will be described in more detail.

#### 4. Results

Taking into account the analysis of obtained information on the current stage of IPSAS harmonization in Brazil, it is important to emphasize that the reduction of social inequalities, reaching the millennium goals and economic development, are strategic challenges. In this context, several studies (eg Chan, 2006, 2010; Gómez Villegas & Montesinos Julve, 2012) call attention to the social contribution of public sector accounting, which can help the socioeconomic development of a country.

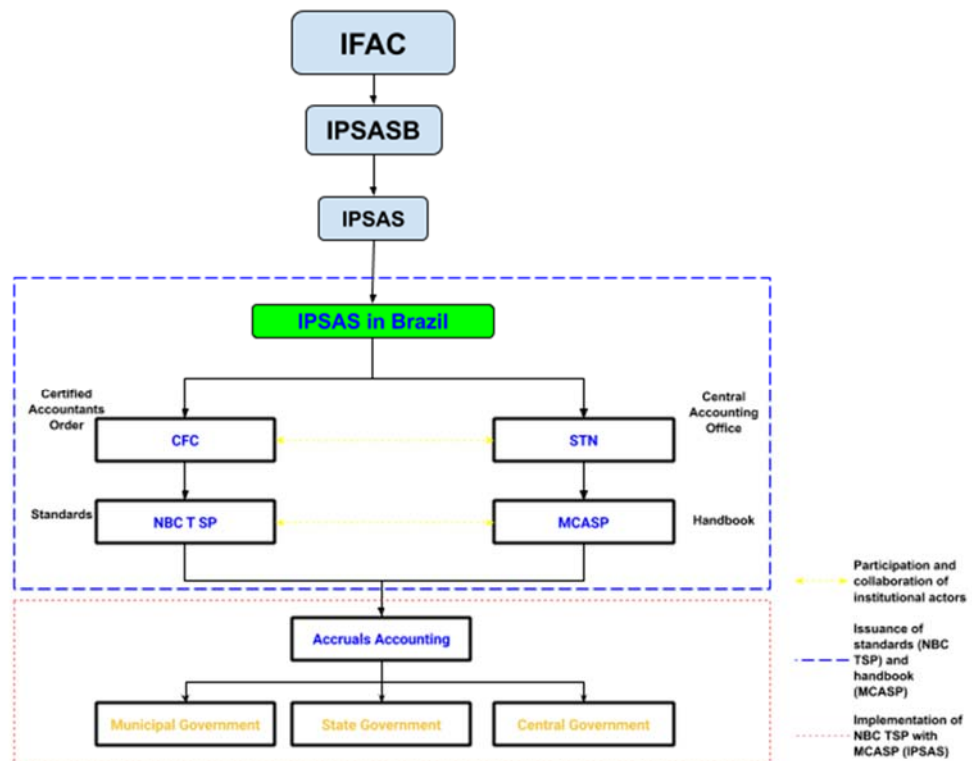
Figure 2 Current Financial Reporting Framework (2018)



Source: IFAC/CIPFA (2018)

Chan (2006, 2010) states that governments, especially in developing countries such as Brazil, should make efforts to issue government financial statements in accrual accounting. According to information released by IFAC (2018), Brazil is part of a group of 14 countries that are indirectly adapting IPSAS through National Standards (see Figure 2). Therefore, when IFAC (2018) states this, it is assumed that IPSAS is harmonized with NBC TSP in Brazil. In order to better understand this process, Figure 3 represents the institutionalized harmonization and implementation flows of IPSAS in Brazil.

Figure 3: Institutionalization and flow of IPSAS implementation in Brazil (2008-2018)



The International Federation of Accountants IFAC (1977) is an international organization which, through the International Public Sector Accounting Standards Board (IPSASB), issues the International Public Sector Accounting Standards (IPSAS). IFAC is supported by a number of international organizations, such as the European Community, the North Atlantic Treaty Organization (NATO), the Organization for Economic Co-operation and Development (OECD), the World Bank, the Inter-American Development Bank (IDB) and the United Nations (UN).

The IPSAS harmonization in Brazil depends on a legal framework. The main legislation that is in force and governs public sector accounting in Brazil is Law 4,320 (1964), Decree-Law 200 (1967), Fiscal Responsibility Law, LRF (2000), Ordinance Ministry of Finance (MF) n. 184/2008, Decree n. 6,976/ 2009 and the Law on Access to Public Information, LAI (2011). Regarding the Brazilian jurisdiction regime, there are rules on the subject provided by the Law 4,320 (1964), but the federal, state and municipal public administration did not adopt the necessary routines for the public assets accounting. In 2008, the IPSAS harmonization process started for the whole country, regardless of the government level and city dimension. It is worth noting that in Brazil, the most populous city is São Paulo, with more than 11.2 million inhabitants and the least populated is Serra da Saudade, Minas Gerais, with 812 inhabitants (IBGE, 2019). In this way, we emphasize that the IPSAS implementation in Brazil is being adopted at all levels of federal, state and municipal government.

The IPSAS harmonization process in Brazil has as normative sources the NBC TSP published by the CFC. The implementation rules have been defined by the STN and are contained in the MCASP. The handbook comprehends the accounting procedures, the Chart of Accounts (PCASP) and the Financial Statements (DCASP). In sum, the national accounts consolidation (Central Government, States, DF and Municipalities) is carried out through the Brazilian Public Sector Accounting and Information System (SICONFI) (see Figure 3).

Based on periods, facts and results in Table 2, it is evident the first initiative to adopt IPSAS in Brazil was the edition of NBC T 16, in 2008, by the CFC (Resolution 1,128/2008). After IPSAS implementation, according to MCASP, the Brazilian Public Sector Accounting Information System was modified, resulting in four subsystems: (i) Budget, (ii) Equity, (iii) Costs and (iv) Compensation. Another relevant aspect of the IPSAS adoption process stages is the CFC and STN concrete actions. They started with the translation of the IPSAS to Portuguese, between 2004 and 2008, then the CFC and the STN formed Working Groups, the CFC published synthesis documents on the harmonization process, the STN created Working Groups (GREL and GTCON) and the Convergence Management Committee. Later, a Technical Cooperation Agreement between IFAC and the CFC was signed and, finally, in 2016, the first "Brazilian Standards of Technical Accounting for the Public Sector - NBC TSP" was published on the IPSAS - Conceptual Framework.

**Table 2: Chronology of Implementation of IPSAS, NBC TSP and MCASP in Brazil (2008-2018)**

Periods	Main facts	Products (results)
2008-2011	Publication by the Ministry of Finance (MF) of Administrative Rule no. 184/08; MF / STN and CFC form Working Group (GTCON and GTREL); Convergence Management Committee (CFC).	1, 2, 3 issues of MCASP (STN); NBC T 16 (CFC, 2008); Translation of IPSAS into Portuguese (CFC, 2010); Elaboration of minutes of the NBC TSP; meetings with public accountants; Training (workshop and congresses)
2012-2015	MF/STN and CFC form Working Group (GTSIS); Adequacy of the Integrated System of Financial Administration of the Federal Government (SIAFI) to the new PCASP	4, 5, 6 editions of MCASP (STN); IPSAS Public Hearing in Portuguese. New Chart of Accounts (PCASP); Training (workshop and congress)
2016-2018	Adequacy of the Federal Government's Integrated Financial Administration System (SIAFI) to NBC TSP (IPSAS)	7 and 8 editions of the MCASP (STN); NBC TSP (initial implementation of IPSAS: Conceptual Framework, 1, 2, 5, 9, 12, 16, 17, 19, 21, 23, 24, 26, 31, 32, 34, 35, 36, 37, 39 and 40); Training (workshop and congress)

**Source:** Cardoso, Aquino & Pigatto, 2014; Costa, Nunes & Almeida (2016); Lima & Lima (2016); Lorini (2018); Morás & Klann (2018); CFC (2019); STN (2019).

In Table 2, the IPSAS implementation cycle in Brazil began with the analysis of international standards applicability in the Brazilian context. Subsequently, the IPSAS went through a public hearing and expert analysis on its most relevant aspects. Later, the CFC incorporated contributions into the NBC TSP minutes. These minutes, too, went through a public hearing. In 2016, the first NBC TSP, based on IPSAS, is published by the CFC. It is important to note that the STN made adjustments to the MCASP, which was the public hearing on the key changes. In the final stage of the cycle, STN, through SICONFI, gathers financial information of all federal entities for procedures validation and consolidation of financial statements based on accrual accounting.

In order to standardize the accounting practices for the implementation of IPSAS in Brazil, the National Treasury Secretariat (STN), in conjunction with the Technical Group on Accounting Procedures (GTCON), prepared the Accounting Plan Applied to the Public Sector (PCASP). The PCASP is updated annually and published exclusively on the Internet (<http://tesouro.fazenda.gov.br/pcasp>) for mandatory use in the following year. The new PCASP, which is the basic structure of accounting books for the consolidation of Brazil's national accounts, has been adapted in SIAFI, in the case of states and municipalities, there are several computerized systems, but in some cases SIAFEM is used. The PCASP with new structure of balance sheet accounts (current, non-current and shareholders' equity), income accounts (augmentative and diminutive equity variations), budget control accounts and control of potential acts (control of debtors and control of creditors). Therefore, it is worth highlighting the Implementation deadlines IPSAS, NBC TSP and MCASP, as of 2016 (see Table 3).



**Table 3: Implementation deadlines IPSAS, NBC TSP and MCASP (as of 2016)**

“Accrual Accounting”	Central	States	Municipalities (>50,000 people)	Municipalities (<50,000 people)
Receivables; Public Debt Assets; Furniture and Real Estate; Liabilities; Investments	Immediate	01/01/2019	01/01/2020	01/01/2021
Credits Tax Revenues and Contributions	01/01/2017	01/01/2020	01/01/2021	01/01/2022
Social Security Credits; Provisions; Contingent Assets and Liabilities	01/01/2018	01/01/2020	01/01/2021	01/01/2022
Intangible Assets; Infrastructure Assets; Stocks	01/01/2020	01/01/2021	01/01/2023	01/01/2024
Cultural Heritage	01/01/2021	01/01/2024	01/01/2024	01/01/2024

Source: STN (2018)

Table 3 provides the timetable for the execution of accounting procedures provided in the MCASP. The IPSAS implementation plan (PIPSP), through the NBC TSP, started in 2013 and involved the Central Government, 26 States, the Federal District and 5,570 Municipalities. This plan was prepared by STN for prior alignment of the stakeholders, to be a reference document, establishing deadlines and presenting different treatment for municipalities with a population of up to 50 thousand inhabitants. Therefore, it is necessary to clarify the STN recommended that federation entities should elaborate their individual plans from the PIPSP, but they could anticipate deadlines. In order to assist entities in achieving deadlines, STN and other institutions are holding workshops and seminars with the involvement of public accountants and managers from the Central Government, State, Federal District and municipalities as a training strategy (see Table 3).

It is necessary to clarify that the central government, state and municipal governments have already initiated the actions stipulated by STN, but in many cases these deadlines have not been fulfilled yet. These difficulties are explained, in one way or another, by the Institutional Theory, since the changes required by IPSAS, NBC TSP and MCASP corroborate aspects related to mimetic isomorphism, since public accountants and managers must implement the new procedures in stipulated deadlines, with rules and routines related to the characteristics of organizational culture over time. The socialization of these practices and knowledge requires a time of maturity in each institution.

It is interesting to note that the main change with IPSAS harmonization in Brazil was the recognition and accounting of the accruals of "off-balance" assets and liabilities (Cardoso, Aquino & Pigatto, 2014; Costa, Nunes e Almeida, 2016; Lima & Lima, 2016; Lorini, 2018; Morás & Klann, 2018). This change is not so simple because it involves mainly knowledge and skills to be acquired by public accountants who will have to: (a) understand the concept and definition of the asset, (b) do analysis of uncertainty and risk about the occurrence of future economic benefits, (c) check the relevance and reliability of accounting information, (d) choose an adequate measurement basis, and (e) evaluate how to apply these accounting procedures in the governmental area (Lorini, 2018, Morás & Klann, 2018). Thereby, accomplishing these standards demands specific training on IPSAS required accounting practices, regulatory bodies' guidelines (CFC and STN) and management support of each public institution in the treatment of regulations. In order to facilitate the understanding of this point, Table 4 shows the Bottlenecks faced by managers and accountants during the implementation of IPSAS, NBC TSP and MCASP.

**Table 4: Bottlenecks faced by managers and public accountants during the implementation of IPSAS, NBC TSP and MCASP**

<b>Bottlenecks</b>	<b>Difficulties faced by managers and public accountants</b>
Public Workers	The public tendering process does not guarantee that the accounting professional stays in the team; resistance to change by technical public workers; lack of technical knowledge by professionals.
Technology	Systems' Suitability, mainly, the module of costs; Broadband internet connection is not installed in all municipalities.
Tax Credits; Receivables	They were not recognized on the accrual basis; Need for general revision of the taxpayers register.
Losses, Provisions, Depreciation, Amortization	It depends on commission to evaluate losses and carry out administrative process; the amounts payable were not recorded; the assets remain in the Balance Sheet for their historical value in the purchase invoice;
Infrastructure Assets; PPP contracts; Cultural Heritage; Revaluation of Assets	How to measure the forests, squares, public roads, road networks, sewage systems, water and energy supply system and communications; accounting for PPP contracts; depends on the survey of all assets belonging to the municipality; review of property controls.
Training	Lack of training to servers; difficulties in interpreting accounting concepts.

**Source:** Cardoso, Aquino & Pigatto, 2014; Costa, Nunes e Almeida (2016); Lima & Lima (2016); Lorini (2018); Morás & Klann (2018).

More generally, three aspects stand out from the examination of Table 4: public servants, technology and training. This makes possible to clearly understand that the difficulties faced by public accountants and managers in relation to IPSAS application in Brazil can be overcome by improving technology and offering more specific training for accounting procedures, such as: (i) Tax Credits; Receivables; Losses, Provisions, Depreciation, Amortization; Infrastructure Assets; PPP Contracts; Cultural Heritage; Revaluation of Assets. In fact, this knowledge has direct application in the quality of the accounting information disclosed in Brazilian public sector financial statements.

In light of these aspects (Table 4), the main difficulties faced by public accountants and managers in relation to IPSAS application are: (i) the public tendering process does not guarantee that the accounting professional stays in the team (ii) broadband internet connection is not installed in all municipalities; (iii) how to measure public assets (eg, forests, squares, public roads, road networks, sewage systems, water and energy supply systems and communications) and (iv) the interpretation of new accounting concepts. Another challenge that makes this process learning even more relevant is the provision of training for thousands of public accountants and managers of all institutions of Brazil's federated entities.

From the analysis of Table 4, outlined above, it is possible to affirm that lessons learned from the IPSAS harmonization process in Brazil depend on stakeholders's governance capacity, that the consequences in the Brazilian legal design will demand urgent Law 4,320 / 64 update, and that the dynamism of the institutional actors CFC and STN were decisive for Brazil's advance in public sector accounting. It is important to note that the leadership of the IPSAS harmonization process in Brazil is carried out by the CFC and STN, but several institutional actors were involved during the process: the Brazilian Association of Capital Finance Secretariats (ABRASF); Brazilian Association of Municipalities (ABM); Association of Members of the Brazilian Audit Courts (ATRICON); National Confederation of Municipalities (CNM); Federal Justice Council (CJF); National Council of Internal Control (CONACI); National Council of Justice (CNJ); National Council of State Secretaries of Planning (CONSEPLAN); National Council of the Public Ministry (CNMP); Budget Consulting and Financial Inspection of the Chamber of Deputies (CONOF); Budget Consulting, Inspection and Control, of the Senate (CONORF); Office of the Comptroller General of the Central Government (CGU); Department of Health Economics and Development (DESD); Department of Public Welfare Pension Schemes (DRPSP); National Front of Mayors (FNP); National

Fund for the Development of Education (FNDE); Group of State Finance Managers (GEFIN); Brazilian Institute of Geography and Statistics (IBGE); Rui Barbosa Institute (IRB); Federal Public Ministry (MPF); Federal Budget Office (SOF); and Court of Audit of the Central Government (TCU) (Lima, 2017).

Also, in Table 4, above, with regard to the social context of most public accountants and managers, Brazilian municipalities have very different socioeconomic realities. In Brazil, the Human Development Index (HDI) considered high ( $> 0.700$ ) is concentrated in municipalities from the Southeast and South regions. Meanwhile, in north and northeast the HDI of most municipalities is very low ( $< 0.499$ ). In fact, although the bottlenecks for public workers, technology and training (Table 4) are central difficulties for the implementation of IPSAS in Brazil, socioeconomic differences must also be considered. Whereas, in the context of IPSAS harmonization, public accountants are faced with a range of needs, such as: changes in long-standing routines, shortage of professionals, and adaptation of inadequate IT systems to meet MCASP's new accounting requirements (Morás & Klann, 2018).

Among the implementation success factors is the demand for more "continuous training". In Brazil, there are thirty-two post-graduate programs in accounting (master's and / or doctorate), authorized in 2019 by the Coordination for the Improvement of Higher Education Personnel (CAPES/Ministry of Education) operating in public and private universities. However, according to Lima (2017), the Academy has not had influence on the IPSAS harmonization process in Brazil. Effectively, there is a research shortage on changes in organizational routines resulted from the IPSAS implementation in the central, state and municipal governments, and a lack of researchers and qualified professionals on the subject in the Brazilian public sector.

It should be emphasized that, although the subject of public sector accounting is scarcely disseminated in Brazilian scientific journals (Costa & Lustosa, 2014), some contributions are found in *Revista de Educação e Pesquisa em Contabilidade*, *Ambiente Contábil*, *Revista de Gestão e Contabilidade*, *Pensar Contábil*, *Revista Contemporânea de Contabilidade e Informação Contábil*. In addition, international researches on the IPSAS adoption and implementation in a number of countries are published, for example, in *Public Money and Management*, *International Journal of Public Sector Management*, *International Review of Administrative Sciences*, *Financial Accountability & Management*, *Journal of Comparative Policy Analysis: Research and Practice* and *Innovar Journal*, and in technical reports released by the IPSASB (<https://www.ipsasb.org/>). Future considerations and perspectives will be described in the next section.

## 5. Conclusions

Based on what was explored here, we verified that: IPSAS consolidation and implementation in Brazil will contribute to socioeconomic development; world main nations have already adopted IPSAS based on accrual accounting; Brazilian Law 4,320/1964 needs to be updated; the key actors of IPSAS adoption in Brazil are STN and CFC; CFC and NBC TSP represent IPSAS in Brazil (translated and adjusted to local reality); IPSAS was fully applied in all government levels (Central Government, 26 States, Federal District and 5,570 Municipalities); MCASP is the main IPSAS handbook; the IPSAS implementation process began in 2016 and is expected to be completed in 2024; and what most remarkable aspects of this process are the difficulties

faced by public accountants and managers related to the lack of public workers, technology and training.

From all that has been said, it is clear the future prospects of IPSAS harmonization in Brazil are related to overcoming difficulties faced by public accountants and managers through the provision of more training. It is worth mentioning, however, that the IPSAS harmonization future in Brazil will depend on greater contribution of accounting graduate programs to training professionals and public accountants for action in central, state and municipal governments. In addition, the IPSAS harmonization process in Brazil still has no international visibility since most scientific research is written in the local language, Portuguese, and has not been published in international journals.

Brazil is recognized for its football, carnival and the Amazon rainforest. On the other hand, changes in the Brazilian government accounting system have not had the same visibility in major international scientific journals (eg, *Accounting, Organizations and Society* (AOS), *Journal of Management Accounting Research* (JMAR) and *Management Accounting Research* (MAR)). This perspective is also associated with the fact that most Brazilian scientific publication in the accounting area is concentrated in local scientific journals in Portuguese (Costa & Lustosa, 2014).

Nevertheless, it has been demonstrated throughout this paper that the harmonization of IPSAS in Brazil is promoting changes in the organizational routines of Brazilian public accounting. In this way, contributing to the correct measurement, recognition and disclosure of the assets, liabilities, revenues and expenses in the public patrimony. Although the harmonization process, in the initial stages of implementation of IPSAS through the NBC TSP, using the MCASP, it is observed that there is institutional support of the CFC, the STN and other institutions, for example, the support of the Court of Audit of the Central Government (TCU), the states and municipalities for the conclusion of this process.

According to Brazilian "low code" legal system, everything must be written in law. Thereby, Law 4,320/1964 (still in force on public accounting) must be updated urgently to reinforce STN's actions with regard to standards hierarchy and then to consolidate IPSAS adoption. In this sense, it is noteworthy that changes in Brazilian Public Accounting System attracted Brazilian society and local media attention soon after the emergence of corruption evidences supposedly committed by Dilma Rousseff's government, whose accounts were rejected by TCU for alleged recognition errors of government contracts with public banks, what violate rules provided in the Fiscal Responsibility Law (LRF).

Taking in account this paper's proposal of contributing to IPSAS harmonization process visibility in Latin America countries, we consider necessary to deepen, in future research, the difficulties faced by public accountants and managers in Brazil, as well as to compare these with IPSAS adoption process in other members of Mercosur (Argentina, Paraguay and Uruguay) and the Andean Community of Nations (Bolivia, Colombia, Ecuador and Peru). Finally, comparative studies with European countries must also be carried out, for example, confronting Brazil and Spain.

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