

Are higher education institutions in Europe preparing students for IPSAS?

Higher education institutions in Europe

Berit Adam

Berlin School of Economics and Law, Berlin, Germany

Isabel Brusca

Department of Accounting and Finance, University of Zaragoza, Zaragoza, Spain

Eugenio Caperchione

*Department of Economics "Marco Biagi",
University of Modena and Reggio Emilia, Modena, Italy*

Jens Heiling

EY, Stuttgart, Germany

Susana Margarida F. Jorge

*Faculty of Economics, University of Coimbra, Coimbra, Portugal and
Research Centre in Political Science, University of Minho, Braga, Portugal, and*

Francesca Manes Rossi

*Department of Management and Information Technologies,
University of Salerno, Fisciano, Italy*

Received 21 December 2018
Revised 1 April 2019
Accepted 23 May 2019

Abstract

Purpose – The purpose of this paper is to analyze whether higher education institutions (HEIs) in EU Member States are aware of the relevance of the ongoing reforms in public sector accounting (PSA) and the need to prepare their students to become expert professionals in that area. It particularly assesses whether these organizations currently provide, or will provide in the near future, education on International Public Sector Accounting Standard (IPSAS)/EPSAS, so that a sufficient number of graduates will be ready to match the foreseeable demand for experts in IPSAS/EPSAS.

Design/methodology/approach – Adopting a purposive sample, the paper compares the situation in four EU countries (Germany, Italy, Portugal and Spain). Data have been obtained through a questionnaire provided to selected professors in relevant HEIs in the selected countries.

Findings – HEIs are giving only limited room to PSA and financial management, with differences in terms of program offerings and coverage of topics among the four countries. Furthermore, in most cases, the programs are adapted to the national budgetary and accounting standards and courses are seldom focused on the IPSASs.

Originality/value – The paper contributes to the literature on PSA harmonization, through an innovative analysis of PSA and financial management teaching, both at national and international levels.

Keywords Accrual accounting, Comparative analysis, Education programmes, IPSASs, Public sector accounting reforms

Paper type Research paper

1. Introduction

Public sector accounting (PSA) reforms have characterized European countries since the advent of New Public Management (Hood, 1991, 1995) and are still animating the debate among standard setters, legislators and accountants' associations.

Previous literature shows that recent reforms in accounting systems have favored the adoption of accrual-based systems in many countries (Lapsley *et al.*, 2009; Pina *et al.*, 2009), at least for reporting purposes (Brusca *et al.*, 2015). In this stream, the International Public Sector Accounting Standards (IPSASs) have been considered and used as a



reference for introducing accrual accounting in many countries (Christiaens *et al.*, 2015), but also for modernizing existing accrual accounting systems, as in the case of Spain and Portugal.

With the adoption of IPSASs or of national standards based on them, PSA systems will therefore undergo profound changes. Such reforms require the availability of skilled personnel, with an adequate knowledge of both accrual accounting and the specificities of the public sector (such as budgeting, cash accounting, etc.), as well as of the international standards. In fact, one of the challenges for adopting IPSASs is the education of professionals, due to the high cost that this implies the time needed to properly forming the staff is also a critical issue, and may vary depending on the starting position of a country (i.e. whether a country already applies accrual accounting), the level of knowledge of accounting staff, the extent HEIs already offer public sector accounting courses.

Even if civil servants may receive initial training as well as they can update their knowledge along their career path, in accordance with the principles of Life Long Learning (Reichard, 2017), taking courses on PSA or public financial management (PFM) while at university might be beneficial for public organizations and for managers and civil servants. This would allow public entities to hire individuals already expert in PFM, saving resources for training (Oldfield, 2017). Thus, the question arises as to whether universities and polytechnics (higher education institutions (HEIs)) offer the required knowledge and skills for students in order to facilitate PSA reforms, namely, those involving IPSASs or IPSAS-based standards, and eventually EPSASs. The paper asks whether HEIs are offering, or will offer in the near future, degrees or courses substantially covering PFM and PSA, and in particular IPSASs. It also explores whether these programs are, or will be, at undergraduate or post-graduate level and whether they are isolated programs, or have a common design and a common policy.

In doing so, the relevance of executive training, e.g. some of the programs taught by *Verwaltungsakademien* in Austria and Germany, is not neglected, but the research focuses on education provided by universities and polytechnics as a possible facilitator for a new generation of managers and civil servants. The key point is that, in order to successfully contribute to the reforms' implementation, it is necessary to have professionals available with adequate PSA skills, and in particular IPSASs knowledge. Even if civil servants may improve their knowledge through training courses, the universities still play a pivotal role by providing students with appropriate basic knowledge (Thom, 2019). HEIs should prepare professionals and experts in PSA able to support and drive PSA and financial management reforms, including, in the European setting, the expected implementation of EPSASs. As a consequence, it is important to investigate the type of education provided to individuals who might be engaged in public administrations, both as employees or consultants.

These questions are all but new: previous research discussed the status of PSA education (Egenolf and Willis, 1983; Henry, 2005), as well as the content of programs in public administration and public policy courses (Hajnal, 2015). Still, PSA seems to be quite a neglected subject in academic courses (Fox, 1977), because of both a limited offer by universities (Egenolf and Willis, 1983; Henry, 2005) and a limited interest by students (Martin and Waymire, 2017). In addition, most of this research considers the US, but not the European context.

In order to fulfill this gap, this paper compares the situation in four EU countries (Germany, Italy, Portugal and Spain), with the aim to identify common and diverging elements concerning how PSA is taught in public HEIs. This point is pivotal for predicting the possibility of having a sufficient number of qualified public sector accountants in the near future.

In this regard, the main research questions the paper tries to answer are:

RQ1. How are HEIs offering education in PSA and financial management matters?

- RQ2. Are HEIs following the international practice trends, namely, IPSASs, when defining their courses and respective syllabi within the public management field (regardless whether they provide offerings at undergraduate or post-graduate level)?
- RQ3. Considering the above questions, are HEIs contributing to modernizing public administration, namely, by preparing experts with the necessary skills in PSA and IPSASs?

By analyzing answers collected through a questionnaire sent to 161 professors at HEIs in four European countries, teaching within degrees or courses where public sector financial management and accounting are likely to be included, this research makes an attempt to depict the state of the art on the actual and planned study programs, and to derive some proposals for the development of PSA education.

The paper unfolds as follows. In the next section, a review of previous studies on the matter is presented. Section 3 defines the context in which the research takes place, offering an overview of PSA and financial management teaching in the selected countries, while Section 4 draws the research design and the methodology adopted. Findings are presented in Section 5, and Section 6 discusses the situation as revealed by the empirical analysis, additionally offering some reflections on the future of PSA teaching programs.

2. Literature review

PSA reforms have involved, in different degrees, all European countries in the last decades, essentially introducing accrual-based accounting in response to the New Public Management wave (Hood, 1991, 1995). A more recent phase of this process is the tendency to introduce IPSASs in EU member countries (Caperchione, 2015). This has led to the adoption of IPSASs, or IPSAS-like standards, in some countries (e.g. Greece, Portugal, Spain, Malta), while others demonstrate some resistance (e.g. Finland, Germany, Sweden) or simply show a rhetorical approach to the adoption of generally accepted accounting standards, without taking any consequential action (e.g. Italy) (Brusca *et al.*, 2015; Christiaens *et al.*, 2015). As scholars discussed at length, the adoption of a certain set of accounting standards, whether in the public (Manes Rossi *et al.*, 2016) or in the private sector (Nurunnabi, 2015), is always related to cultural factors and accounting traditions.

In this context, one of the challenges arisen in studies commissioned by the European Commission (e.g. PwC, 2014) is the insufficient education of civil servants in PSA. In several guidelines on the transition to accrual accounting, the importance of capacity building and training is emphasized (e.g. IPSASB, 2011; IMF, 2016). In fact, the accounting dimension is often part of public sector reforms (Pollitt and Bouckaert, 2011). Therefore, the role played by European HEIs in providing adequate courses to students interested in acquiring specific knowledge in the field needs to be considered.

Scholars started to discuss problems related to education in PSA long time ago, unveiling a large disparity between the increasing complexity of governmental accounting and the coverage assured by business schools programs, with PSA almost neglected in academic courses (Fox, 1977). Other studies documented a limited interest by universities in offering public sector courses, due to the lack of financial resources or the lack of qualified faculty members to provide lectures (Egenolf and Willis, 1983). Epps and Brown (1992) state that academic institutions are ignoring the need to educate governmental accountants to respond to the specific knowledge requirements of this profession, paying much more attention to other professional and commercial interests. However, it has to be reminded that these studies consider the state of the art in the USA, and that, so far, there is a clear lack of similar studies in the European context. Studies based in Europe or including European countries mainly investigate public

administration teaching (Ellwood, 2008; Pal and Clark, 2016), and only rarely consider also PFM or PSA (Reichard, 2017; Thom, 2019).

Another problem that emerged long time ago is the limited attraction exercised by government accounting on students (Beights, 1954; Engstrom, 1979; Shivaswamy and Hanks, 1985). Possibly a circular effect has created a low offer against a low demand and vice versa. In fact, even in more recent times, and despite the pressure for the introduction of international accounting standards in public sector worldwide, the problem seems to persist and research continues to report a low interest by students in PSA courses (McKenzie, 1992), possibly due – *inter alia* – to limited stimuli received by universities in this sense.

Martin and Waymire (2017) consider this circular effect, discussing the interest of students for a government job in accounting. They conclude that offering a course in government and non-profit accounting, focused on technical content, leads students to begin to consider government accounting careers in a different perspective, as a job that can convey both monetary and non-financial benefits, together with dynamic and creative professional opportunities. The results are consistent with what emerged by a survey assessing the knowledge of upper-level accounting students about the differences between the public and private branches of accounting (Crossman, 2017), where only 51 percent of students receiving the questionnaire were aware of the differences: after reviewing pros and cons of the two careers, 28 percent of respondents switched from private to PSA.

Under a different perspective, Daniels *et al.* (2007) surveyed professors specialized in governmental and non-profit accounting in US universities, revealing that reforms affecting the format of financial reporting in public sector entities were considered a challenging issue. The research also evidences that governmental topics are discussed in advanced accounting courses, but with limited time available.

More broadly, Boyce (2004, p. 569) underlines how “accounting education is in the midst of a reform effort designed to address perceived deficiencies associated with the dominance of a narrow, functionalist view of the discipline.” Parker (2002) claims that university changes are basically due to external environmental pressures and disturbance. Thus, a particularly narrow set of interests eventually prevailing over others may drive the university change (Boyce, 2002).

These external demands and developments seem to have not favored the development of courses devoted to PSA and financial management studies.

Given that PSA has its own features (e.g. accounting for tax revenue, transfers and grants, infrastructure assets, military assets, etc.), it is necessary to acquire at least basic knowledge of how accounting information systems, accounting technologies and accounting standards work in public sector entities, thus requiring course design effort by faculty members (Thom, 2019). Furthermore, education in PSA is often country-specific, being related to the general features of public sector entities and administrative system in place in each country (Reichard and Schröter, 2018).

Cordery (2013) found that financial accounting education for private sector corporations crowded out the teaching of public services content in New Zealand. It has to be noted that the New Zealand public sector applied IFRS at that time, and the same accounting concepts could be applied to all sectors, offering the possibility to have a sector-neutral approach also in accounting education.

As recently highlighted by Thom (2019, p. 104), it is necessary “to train and equip the next generation of public administrators with the skills needed to confront the public sector’s increasingly difficult and intractable financial challenges.”

This line of reasoning leads to the need to conduct research on the state of the art in education in PSA in selected European countries, so as to evaluate their overall ability to offer the knowledge and skills on the broader field of public sector financial management (embracing accounting), as currently required by modern European public sector and

governmental entities. And, in particular, it has to be checked whether universities are considering IPSASs in their courses, so that when students complete their degree they are able to support PSA reforms with a focus on IPSASs – or EPSASs.

3. Methodology

This paper uses a comparative international perspective (Hantrais, 2009), analyzing four EU countries – Germany, Italy, Portugal and Spain – to identify common and diverging elements concerning: how PSA and financial management is taken into account in higher education; and whether HEIs are preparing students to become qualified professionals to support PSA reforms, namely, toward IPSASs implementation. Furthermore, the comparison of the four countries can be useful to realize whether there might be a relationship between the offerings in HEIs and the level of implementation of IPSASs. The countries selected, although all Western European, are quite different from each other in terms of public sector accounting scenario, and this can affect the way HEIs are behaving. While Spain and Portugal are clearly in favour of international standards, Italy has been more conservative regarding IPSASs adoption; Germany clearly evidence a deep rooted national accounting culture, being the most resistant to follow international standards, despite the widespread use of accrual-based accounting at local level.

Starting by comparing contextual general descriptions, it evidences the state of the art in terms of PSA and financial management teaching in HEIs in each of the four countries analyzed, so as to gain preliminary understanding on the topic. The research then continues examining whether HEIs in these countries are preparing students for a foreseeable large demand of accounting skilled personnel in public administrations.

A questionnaire was submitted to selected professors in relevant public HEIs. The targeted population included scholars from public faculties or schools where PFM or PSA issues can be taught (e.g. Faculties/Schools of Economics, Business Administration and Public Administration/Management). In those schools, the questionnaire was sent to professors actually teaching courses in PFM and PSA. As a consequence of that approach, not all HEIs of a country were included in the population. A total of 161 questionnaires were sent to HEIs of the four countries (see Table II). This allowed to get first-hand information on the actual and planned programs of studies, from a purposive sample.

The survey was applied between April and November 2017. PSA was understood at a wider scope, to embrace budgeting, financial management and reporting, and auditing. These topics were generally interpreted within a broader definition of “PFM,” presented at the beginning of the questionnaire, as describing the way in which public sector entities administer financial resources, also encompassing the impact of public sector finances on the economy and society as a whole (Andrews *et al.*, 2014).

The survey was structured in five main questions, some with sub-questions, aimed at collecting the following information[1]:

- (1) Whether there is a particular degree or study program on PSA and financial management matters, at which level of teaching (undergraduate or post-graduate), and with how many students. To a negative answer, respondents were then asked whether there are plans to create such a degree or study program.
- (2) Afterwards, they were also asked whether there are individual courses or seminars on the topic (even though specific programs are not in place). To a positive answer, details had to be provided as to the degrees in which the courses or seminars are included, their attendance the fact that they are compulsory or elective, their duration, the number of credits, and whether topics about IPSASs are somehow included in the syllabi.

- (3) Even if neither program nor courses or seminars are available, respondents were asked whether some PFM and PSA topics are taught within public administration or public management courses.
- (4) The possibility of students to write a BSc or MSc thesis on PSA and financial management topics, regardless the existence of any degree, course, seminar.
- (5) The significance respondents assigned to the topic of PSA within the field of public management/public administration.

The research follows a descriptive methodology, to derive comparative results for the state of education in the area of public sector financial management, especially PSA and budgeting.

4. Main findings presentation and discussion

4.1 Public sector accounting and financial management teaching in HEIs in selected EU countries

Considering the object of the empirical study, this section briefly describes the main characteristics of PSA in each investigated country, as well as those of their higher education teaching systems, to broadly gain knowledge on how PSA and financial management-related matters are included.

Germany. In Germany, PSA systems are not harmonized across the different levels of government. Unlike many other European countries, the federal government in Germany has not implemented accrual accounting; entities at the federal government level (with some exceptions) apply the cash-basis of accounting (“Cameral Accounting”). The same holds true for the majority of entities at the state (“Länder”) level. Besides the city states of Bremen and Hamburg, as well as Hesse and Northrhine-Westfalia, all other 12 states in Germany apply the cash basis of accounting. In contrast to the federal and state level, the majority of local governments have implemented accrual accounting together with accrual budgeting. Only some states in Germany offer a choice with regards to the basis of accounting to the local governments (e.g. Bavaria). IPSASs do not play any role in government accounting in Germany.

Regarding HEIs, there are various types of universities in Germany. Universities are typically strongly research oriented and offer a wide range of subjects, but some specialize in a particular subject area, and in this case they are called technical universities (*Technische Universitäten*) or colleges of education (*Pädagogische Hochschulen*). In Germany, there are around 30 universities of applied sciences specifically working for the context of national and regional public authorities. These institutions provide training for careers in senior levels of civil service and can only be attended by officials working in the public services. Dual universities (such as *Berufsakademien*) combine academic studies and vocational training.

The various types of universities typically offer bachelor (BSc) degree programs, where students acquire basic knowledge of a subject over six to seven semesters (180–210 university credits – as per ECTS, the European Credits Transfer System), and master (MSc) programs, where students can deepen and extend their knowledge or specialize in a particular field over three to four semesters (90–120 ECTS).

As to PSA and financial management, there seems not to be any degree or study program running in German universities at the moment. PSA and financial management courses are taught separately in the majority within study programs or degrees on Public Management and Public Administration. In some study programs or degrees, the focus is more on budgeting than on accounting and/or financial management. Courses in PSA and/or financial management are mainly offered by professors in the Faculties of Business Administration/Economics and less in the Faculties of Law.

Italy. In Italy, PSA systems have been harmonized thanks to a recent reform (Law 118/2011), effective since 2015. The new system is still based on modified-cash basis accounting for

budgeting and managerial purposes, but requires reporting to be presented under accrual basis (Manes Rossi, 2015). IPSASs are not considered as a point of reference, and despite several projects occurred in the State General Accounting Department, no concrete steps have been undertaken neither to adopt IPSAS nor to adequate national standards to the IPSAS approach.

The Italian higher education system is deeply rooted in the public sector. It includes universities, institutes of higher education in art and music, and higher technical institutes. Polytechnics are equated to universities. Italy adhered to the Bologna process since the initial declaration in 1999. University education is provided by 96 institutions: 67 state universities (of which 9 are higher schools, or institutes, called “special system higher schools”) and 29 non-state universities (11 of which offer distance or online learning only, so that students are not physically present at the university).

According to the Bologna process and the national qualification framework, education at universities is articulated in three levels: BSc or First Cycle Degree (three-year degree, 180 ECTS); MSc or Second Cycle Degree (two-year degree, 120 ECTS); PhD (three-year degree) and Specialization Diploma (varies from two to six years, equal to 120–360 ECTS).

PSA courses are often offered as elective courses in Business Administration, Management, Accounting and Finance. Only rarely are the courses included in the degree as mandatory. This is linked to the fact that Universities offer BSc and MSc oriented to private sectors, while there is a very low attention toward public sector curricula (both in management and in finance).

Portugal. From traditional cash-based budgetary accounting, Portugal embarked in a significant reform in public sector accounting in the middle of the 1990s, introducing the accrual-based regime. As a centralized country, the Chart of Accounts for Public Sector Accounting passed in 1997, inspired by the business accounting system, and was extended to all main areas of public administration, namely local government, education, health and social security. Twenty years after, a new reform is coming into practice, adapting the previous accounting and reporting system to the IPSASs (Jorge, 2015). The new System of Accounting Standards for Public Administrations (*Sistema de Normalização Contabilística para as Administrações Públicas – SNC-AP*) introduced by a law in September 2015, includes 27 standards embracing cash and commitment-based budgetary accounting and reporting, together with accrual IPSAS-based financial accounting and reporting; it also comprises management accounting guidance. As to public higher education, there are in Portugal 14 universities and 20 polytechnics, with a lot of diversity in terms of size in each category. Accounting degrees at BSc (undergraduate) level have been traditionally offered in (practice oriented) polytechnic institutes, but in the last two decades a few universities started to offer them, too. Currently, accounting degrees or study programs at post-graduate level, mostly at MSc level, are offered by several universities and polytechnics, many mixing accounting with finance, taxation, auditing and management control. However, most degrees are mainly focused on business studies.

After the Bologna Agreement and the adoption of the ECTS, BSc degrees became three-year long, and MSc degrees 1.5 to 2-year long; the former require 180 ECTS to be completed, while the latter range between 90 to 120 ECTS.

Since the reform happened in the 1990s, PSA started then to be taught as an autonomous course, whereas the traditional administrative cash-based accounting used to be taught in Public Finance and Public Administration degrees, generally offered by Faculties and Schools of Law. More recently, PSA has been included, either at undergraduate or post-graduate level, in other degrees such as business studies, management, public administration, local government management and accounting and finance. Polytechnic institutes go deeper in technical issues, while in just a few universities, where PSA is offered as an autonomous course, it tends to be more theoretical.

HEIs only very recently started to teach the new IPSAS-based standards system, given that the SNC-AP has only come into practice in January 2018.

Spain. In Spain, the evolution of PSA has been close to the evolution of business accounting standards. Accrual accounting was introduced into central government in the 1980s and in local government in 1992. The adaptation of business accounting to IFRSs in 2007, mainly due to the requirements of the European Union for listed companies, had an important impact in PSA, and the respective Chart of Accounts was adapted to IPSASs in 2010. Central government has been applying it since 2011, and local governments since 2015.

As for the higher education system, in Spain there are 50 public and 32 private universities, with significant differences between their sizes and characteristics. An important challenge has been the adaptation to the European Higher Education Area.

In 2010, the universities started to implement the new programs, in accordance with the Bologna process. The most frequent structure of the studies is as follows: BSc degrees have 240 ECTS (180 ECTS are also allowed, but this option occurs rarely); MSc degrees usually require 60 ECTS, and then students who wish can continue following a PhD degree. With the reform, a limited number of universities started to offer a BSc in Accounting and Finance. MSc in Accounting are offered by a few more universities, many mixing accounting with finance, taxation, auditing, management control, focused on businesses in most cases. There are approximately 30 universities offering a degree in Public Administration and Management in Faculties of Economics, Law, Political Science.

PSA is taught in the degree of Public Administration and Management when this is offered in the Faculties of Economics or Business Administration, and it is a compulsory subject. As to the Faculties of Law, there are differences in contents and, in some cases, they do not offer students the possibility to take courses in PSA.

Some universities offer courses of PSA in the degrees of Economics, Business Administration or Accounting and Finance. In all cases, this is an elective course.

Comparative analysis. Table I summarizes the main issues derived from the above descriptions, concerning particularly PSA and financial management teaching. Overall, the following issues can be highlighted:

- Germany and Portugal are the countries that distinguish between institutions devoted to more technical and applied teaching and others focused on a more theoretical type of education.
- At BSc level, while Portugal and Italy keep within the three-year degrees, Spain and Germany allow up to four-year degrees. Additionally, Spain seems to be the one including PFM-related topics within Political Science degrees.
- At MSc level, again while Portugal and Italy keep within the two-year degrees, Spain and Germany allow shorter degrees, considering the possible combination with longer degrees at BSc level; in any case, an MSc level degree is generally reached with five years of studies.

However, in none of the countries study programs or degrees are offered, as a whole, clearly targeted on PSA and financial management.

4.2 How are HEIs preparing qualified students to support public sector accounting reforms and IPSASs

This section presents and discusses the results of the survey undertaken, following the methodology described in Section 3.

A total of 75 answers were received (Table II), leading to a purposive sample of about 47 percent of the targeted population considering all four countries together. In the case of

Higher education institutions in Europe

| | Germany | Italy | Portugal | Spain |
|---|---|---|---|--|
| Public sector accounting and IPSASs implementation HEIs | IPSASs do not play any role | Accounting system is not harmonized with IPSASs | National standards are adapted to IPSASs | National standards are adapted to IPSASs |
| BSc Level Areas | Public and private universities Applied universities Dual universities | Public and private universities | Public and private universities Public polytechnics and private institutes | Public and private universities |
| Duration/ECTS | 3 years (180 ECTS) or 3,5 years (210 ECTS) | 3 years (180 ECTS) | 3 years (180 ECTS) | 4 years (240 ECTS) |
| MSc Level Areas | Public administration Public management Public Governance Business studies | Public financial management Business studies Accounting | Public administration/ management Business studies Accounting | Public administration and management Business Studies Accounting and Finance Political science Economics |
| Duration/ECTS | 1.5 years (90 ECTS) or 2 years (120 ECTS) | 2 years (120 ECTS) | 2 years (120 ECTS) | 1 year (60 ECTS) |

Table I.
Higher education in public sector accounting and financial management

| | Germany | Italy | Portugal | Spain | Total |
|--|---------|-------|----------|-------|-------|
| Total number of HEIs | 354 | 96 | 34 | 50 | 534 |
| Number of surveys send out (target population) | 74 | 44 | 18 | 25 | 161 |
| Total number of answers (purposive sample) | 18 | 30 | 13 | 14 | 75 |
| Response rate (%) | 24.32 | 68.18 | 72.22 | 56.00 | 46.58 |

Table II.
Sample

Germany, the proportion of HEIs included in the study is lower than in the other three countries due to the fact that the starting point of the study in Germany were the professors of Business Studies organized in the scientific commission “Public Management,” complemented by professors teaching public management in universities of applied sciences. Portugal presents the highest rate of response, followed by Italy.

As to the offer of a degree or study program on the matters of PFM, only 14 institutions (about 19 percent) have positively answered, half of them from Spain. On the other hand, in Germany no institution offers a degree or study program on these subjects. The number of students is very variable, ranging from 10–25 in Italy to 40–150 in Portugal. This variability could be related to the fact that some degrees are at BSc level (higher number of enrolled students), while other are at MSc level. Spain is the country where there is the largest offer to students of public sector financial management degree or study programs, in which students can learn public sector accounting. Spain is also the first country amongst the four in the analysis that moved toward the IPSASs, which might indicate that HEIs in Spain are aware of the relevance of preparing expert professionals on those matters.

Overall, there are ten institutions planning to implement such type of degrees, four of them in Portugal, three in Italy, two in Spain and one in Germany. The implementation period varies between two months and two years.

In Germany, there are 12 (out of 18) institutions where students can attend one or more courses or seminars, at BSc or MSc level, on subjects related to PSA and financial management. These courses or seminars are elective, and in about 42 percent of the institutions they are attended by up to 40 students; in two institutions they go over 120 students. There was no indication of any duration or ECTS awarded, which may indicate that institutions only offer sporadic seminars, but not courses on a regular basis. In particular, in courses or seminars of five institutions, IPSASs are addressed. Furthermore, it must be taken into account that some HEIs offer special executive programs for practitioners from the public and private sectors (Reichard, 2017), which can include IPSASs. However, the research does not include these kinds of programs, as it focuses on education provided in HEIs.

Most of the respondents from German institutions (17) confirm that students are allowed to develop their BSc or MSc thesis on topics related to the subject. Finally, four institutions, despite not having any course or seminar on the topics, include some elements related to PSA and financial management in other courses or seminars.

The situation is different in the other three countries, even if there is still room for improvements. In Italy, about 83 percent of the institutions included in the study offer one or more courses or seminars (at BSc or MSc level), while the percentage decreases to 79 percent in Spain and 69 percent in Portugal. This evidences that PSA and financial management matters have been included in university study programs or degrees. These percentages are indeed high, but one must take into account that most institutions have been targeted in the survey because they could include these topics.

The type of degrees in which the topics are included varies across countries. In Italy, PSA and financial management-related topics are included in most cases in Business Administration degrees (72 percent of the cases), but also in Economics and in Public Administration degrees. Furthermore, in Italy courses on these subjects are compulsory in many cases (17 out of 25 institutions). In 56 percent of the institutions, there is a number of up to 40 students enrolled, while in 20 percent of the institutions there are more than 120 students.

In Spain the distribution of these topics is quite even, being included in Business Studies, Economics, Public Administration and Finance and Accounting. Courses are mostly elective, but in three universities they are compulsory.

In Portugal, out of the nine institutions offering courses or seminars on PSA and financial management, four include them in Business Studies, three in Public Administration and two in Accounting and Finance. Only in 33 percent of the institutions are these courses or seminars compulsory.

As in Spain (55 percent), in Portugal the number of students enrolled in PSA and financial management courses and seminars is not higher than 40 in most institutions (67 percent). The number of students surpassed 120 in only 1 institution in Portugal, and nowhere in Spain.

About the duration of the courses or seminars, as well as about credits awarded, they greatly differ between the countries, being on average 30–60 h and 3–6 ECTS, respectively.

Finally, even in those institutions, based in Italy, Portugal and Spain, that do not offer any course or seminar in PSA and financial management, some elements related to these topics are sometimes included as a component in the syllabi of other courses or seminars.

IPSASs are specifically taught in most cases in Italy (14 institutions out of 25 teaching PFM-related topics) and in Portugal (seven out of nine include this topic in BSc or MSc degrees). However, both in Portugal and in Spain the courses syllabi are focused on national accounting standards for the public sector, so that a detailed analysis of IPSASs is not explicitly included. Nevertheless, national standards are IPSAS based, which makes that

they are indirectly included. Overall, HEIs courses in these countries have been adapted to recent reforms in PSA.

The interest of Italy, Portugal and Spain in PSA and financial management is also evidenced by the percentage of respondents acknowledging that students can write their BSc or MSc thesis on these topics. In fact, 93 percent in Italy, 92 percent in Portugal and 86 percent in Spain replied that this is allowed. Germany, despite less encouraging figures regarding PSA and financial management teaching, reaches 94 percent, the highest value amongst the four countries, when it comes to allow BSc and MSc thesis on related topics. Overall, in all countries, PSA and financial management seems to be recognized as a discipline in HEIs and students interested can do research and theses on it.

As displayed in Table III, most respondents assign high or very high importance to PSA topics within the field of public sector financial management. Even in Germany, the mean is above the middle level of the scale. In the other three countries, it goes above 4 (out of 5 levels). Overall, 41 percent of the respondents assign the maximum level of importance to those topics. This can be explained by the fact that most of them are teaching in this area.

The results evidence that integration of PSA in HEIs study programs and curricula has increased in the last years, apparently as PSA gained some importance as an autonomous branch of the accounting discipline. Still, there is room for improvement as, in the countries analyzed, only a limited number of scholars and students are involved in these courses, and in most of the HEIs surveyed IPSASs are not taught. These results are coherent with previous literature, namely, Henry (2005), who evidences similar issues for the USA, in spite of academics and practitioners recognizing the significance of PSA in the students' curricula.

5. Discussion

Drawing on the recent support of the European Commission for implementing accrual-based accounting systems in public administrations in Europe, the present research empirically investigates how PFM, and particularly PSA, is taught in HEIs in four European countries – Germany, Italy, Spain and Portugal – to explore the possibility for public institutions to have a sufficient number of qualified public sector accountants available, fostering accounting reforms.

The results collected answer to the first research question, demonstrating that the number of degrees offered in PFM in all countries surveyed turned out to be low, especially considering the fact that the analysis was done asking a preselected number of professors and of HEIs. For Germany, it has to be highlighted that, despite the fact that PSA maturity in that country is considered to be quite low (PwC, 2014), actually none of the institutions surveyed offers any degree in the area of public sector finance management. Spain is the only analyzed country where there are HEIs with more degrees in these matters and also the first, out of the four countries analyzed, implementing national standards based on IPSASs.

| Importance Scale | 1 | 2 | 3 | 4 | 5 | Mean | Yes Answer | No answer | Total |
|------------------|------|------|-------|-------|-------|----------|------------|-----------|-------|
| Germany | 0 | 2 | 3 | 7 | 5 | 3.882353 | 17 | 1 | 18 |
| Italy | 0 | 0 | 6 | 11 | 12 | 4.206897 | 29 | 1 | 30 |
| Portugal | 0 | 0 | 2 | 4 | 7 | 4.384615 | 13 | 0 | 13 |
| Spain | 0 | 1 | 1 | 6 | 6 | 4.214286 | 14 | 0 | 14 |
| SUM | 0 | 3 | 12 | 28 | 30 | 4.164384 | 73 | 2 | |
| % of answers | 0.00 | 4.11 | 16.44 | 38.36 | 41.10 | | | | |

Table III.
Perception about the
significance of the
public sector
accounting topic
within the field of
public sector financial
management

In relation with the second research question, in all four countries, courses are offered at BSc and/or MSc level. The results evidence that the least developed country in terms of offering public finance management-related courses or seminars is Germany, whereas Italy and Spain seem to be the most developed in terms of offerings. In Italy, courses or seminars are mostly compulsory, whereas in Spain and in Portugal they are predominantly elective.

In terms of disciplinary orientation, most of the degrees offered are located in Business Administration degrees, followed by Public Administration.

IPSASs are currently included (either directly or indirectly, as in Spain and in Portugal) in PSA and financial management curricula, but certainly not in all institutions. In Italy, IPSASs are often included in syllabi, while in Spain and Portugal those syllabi refer to national standards, albeit IPSAS based. This seems to show that there is not always a full correlation between the offering of PSA in HEIs and the level of modernization of the PSA system in the country, but that some themes might be included in the syllabi, possibly following research interest of professors. In Italy, for example, the topic of IPSASs is included in most syllabi, although Italy has not adopted IPSASs so far.

All in all, and answering to the last research question, higher education study programs on PSA and financial management are still largely focused on national budgeting and accounting issues in all countries; only partially or in short seminars are IPSASs included. A course solely on IPSASs could not be identified in any of the countries surveyed. HEIs adapt their programs to the country requirements, so that if IPSASs (or accounting requirements based on that accounting framework) are adopted, programs are modified accordingly. In this context, it has to be noted that the inclusion of IPSASs in future PSA and financial management curricula in European countries will probably depend on the development of the EPSASs project and on the extent of EPSAS-IPSAS mirroring, confirming that education for the public sector is the product of the general features of how government and public administrations are organized in every country (Reichard and Schröter, 2018). Nonetheless, the perception about the significance of PSA within the field of public sector financial management is considered highly relevant in Italy, Portugal and Spain, whereas respondents in Germany considered that PSA should have a high significance (but not the highest) within public sector financial management.

6. Conclusion and implications

The new round of PSA reforms taking place throughout Europe creates the demand for qualified accountants for public administrations. Scholars have already questioned the need for a wider offer in PSA and financial management teaching. However, it seems that most studies have only considered the US context, while investigations developed in the European context focus mainly on public administration teaching.

This research offers new knowledge on the development of PSA teaching in Europe. In doing so, it provides rooms for reflection by academics and HEIs' governing bodies on the future development of PFM and PSA teaching, but can also present some policy implications in the development of EPSAS.

Although public administrations in Europe are being called to further innovate their accounting systems and to an extensive adoption of international accounting standards (IPSAS or EPSAS), the research demonstrates that – at least in the four countries analyzed – little attention is being currently paid to the need of educating qualified staff to be hired.

HEIs are giving only limited room, if any, to PSA and PFM programs; therefore, the number of individuals having an appropriate qualification in this field will likely remain quite low, and will probably be insufficient to meet the foreseeable high demand of graduates in the area of public sector financial management in the near future. Thus, the reform and the IPSASs/EPSASs implementation are unlikely to be supported by an adequate number of HEIs graduates. Public administrations will then have to mainly rely on

their existing workforce (training on the job, upskilling), or to hire graduates of law or economics/business studies with limited knowledge of PSA and financial management, and will need to heavily invest in training, following a trend already in use. This will not be an easy task after the financial crisis led to dramatic public expenditure cuts, both in general and in this area (Thom, 2019). Governments, therefore, might exercise some pressure on HEIs to improve their curricula in PFM and PSA.

According to Boyce (2004), results also challenge HEIs in overcoming a functionalist approach to PSA and starting to consider this discipline as fundamental in developing skilled graduates ready to be employed in public sector organizations.

It also needs to be underlined, in the light of the EPSASs reforms, that teaching PSA contents should not be part of business-oriented accounting classes. In line with Cordery (2013), there is a strong case for public sector-specific accounting offerings in HEIs. People involved in teaching activities should start to introduce students to PSA studies, also in a critical approach, in order to make them more familiar with the subject and break the negative spiral documented in previous studies (Engstrom, 1979; Shivaswamy and Hanks, 1985) of limited attraction of PSA courses, rather illustrating benefits related to occupational opportunities (Martin and Waymire, 2017).

This paper sheds light on this situation, and calls for action of HEIs boards, PSA professors, European institutions and national governments (namely, education departments or ministries) to fill this obvious gap in HEIs' programs.

The research also contributes to the harmonization process in PSA and financial management teaching, both at national and international levels, in line with the harmonization process taking place in PSA systems themselves, and as a driver for it.

Nevertheless, this study has a number of limitations, that might represent avenues for further research. First, the research covers only four Western European countries, while it is worth to consider how HEIs in Eastern European countries are preparing students to cover professional opportunities in public sector organizations. Second, a comparison exploring a larger number of countries would allow to detect a more comprehensive picture of the state of the art in PFM and PSA education in Europe, which might be of interest also for policy makers while developing a new set of accounting standards specifically designed for Europe. Third, the research focuses on education provided by HEIs to students who might be willing to look for a job as civil servants or consultants. However, a research creating a bridge between degrees and courses at BSc and MSc level and academic executive programs specific to practitioners and civil servants could be useful for a better design of teaching activities.

Note

1. The questionnaire is available from the authors, upon request.

References

- Andrews, M., Cangiano, M., Cole, N., de Renzio, P., Krause, P. and Seligmann, R. (2014), "This is PFM", Working Paper No. 285, Center for International Development, Harvard University, Cambridge, MA.
- Beights, D.M. (1954), "Opportunities for a career in governmental accounting", *The Accounting Review*, Vol. 29 No. 4, pp. 614-619.
- Boyce, G. (2002), "Now and then: revolutions in higher learning", *Critical Perspectives on Accounting*, Vol. 13 Nos 5/6, pp. 575-601.
- Boyce, G. (2004), "Critical accounting education: teaching and learning outside the circle", *Critical Perspectives on Accounting*, Vol. 15 Nos 4/5, pp. 565-586.

-
- Brusca, I., Caperchione, E., Cohen, S. and Manes Rossi, F. (Eds) (2015), *Public Sector Accounting and Auditing in Europe: The Challenge of Harmonization*, Palgrave-Macmillan, Basingstoke.
- Caperchione, E. (2015), "Standard-setting in the public sector: state of the art", in Brusca, I., Caperchione, E., Cohen, S. and Manes Rossi, F. (Eds), *Public Sector Accounting and Auditing in Europe. The Challenge of Harmonization*, Palgrave Macmillan, Basingstoke, pp. 1-11.
- Christiaens, J., Vanhee, C., Manes Rossi, F., Aversano, N. and Van Cauwenberge, P. (2015), "The effect of IPSAS on reforming government financial reporting: an international comparison", *International Review of Administrative Sciences*, Vol. 81 No. 1, pp. 158-177.
- Cordery, C. (2013), "Does public services accounting belong in the curriculum?", *Pacific Accounting Review*, Vol. 25 No. 1, pp. 101-116.
- Crossman, H.A. (2017), "Awareness of the public versus private accounting divide, and its impact on the career path preference of accounting students", *Accounting Education*, Vol. 26 No. 4, pp. 392-409.
- Daniels, B.W., Gupta, R.D. and Pridgen, A.K. (2007), "Faculty perspectives on governmental", *The Accounting Educators' Journal*, Vol. 17, pp. 1-12.
- Egenolf, R. and Willis, G.W.K. (1983), "Status of public sector accounting education", *Journal of Accounting Education*, Vol. 1 No. 1, pp. 63-69.
- Ellwood, J.W. (2008), "Challenges to public policy and public management education", *Journal of Policy Analysis and Management*, Vol. 27 No. 1, pp. 172-187.
- Engstrom, J.H. (1979), "Public sector accounting education: status update and extension", *The Accounting Review*, Vol. 54 No. 4, pp. 794-799.
- Epps, R.W. and Brown, K.S. (1992), "Is the accounting curriculum neglecting governmental accounting and auditing?", *The Journal of Government Financial Management*, Vol. 40 No. 4, pp. 1-8.
- Fox, J.G. (1977), "Education for governmental accountants", *The Government Accountants Journal*, Vol. 26 No. 3, pp. 44-52.
- Hajnal, G. (2015), "Illiberal or simply unorthodox? Public Administration education in Hungary: a comparative perspective", *Teaching Public Administration*, Vol. 34 No. 2, pp. 205-224.
- Hantrais, L. (2009), *International Comparative Research: Theory, Methods and Practice*, Palgrave Macmillan, Basingstoke.
- Henry, B.K. (2005), "A survey of governmental accounting education studies", *Journal of Public Budgeting, Accounting & Financial Management*, Vol. 17 No. 2, pp. 166-179.
- Hood, C. (1991), "A public management for all seasons?", *Public Administration*, Vol. 69 No. 1, pp. 3-19.
- Hood, C. (1995), "The new public management in the 1980s: Variations on a theme", *Accounting, Organizations and Society*, Vol. 20 Nos 2/3, pp. 93-109.
- IMF (2016), "Implementing accrual accounting in the public sector", *Technical Notes and Manuals*, International Monetary Fund, Fiscal Affairs Department, Washington, DC.
- IPSASB (2011), *Transition to the Accrual Basis of Accounting: Guidance for Public Sector Entities*, 3rd ed., International Federation of Accountants, New York, NY.
- Jorge, S. (2015), "Public sector accounting and auditing in Portugal", in Brusca, I., Caperchione, E., Cohen, S. and Manes Rossi, F. (Eds), *Public Sector Accounting and Auditing in Europe. The Challenge of Harmonization*, Palgrave Macmillan, Basingstoke, pp. 173-190.
- Lapsley, I., Mussari, R. and Paulsson, G. (2009), "On the adoption of accrual accounting in the public sector: a self-evident and problematic reform", *European Accounting Review*, Vol. 18 No. 4, pp. 719-723.
- McKenzie, K.S. (1992), "Attitudes toward governmental accounting careers: a second look", *The Government Accountants Journal*, Vol. 41 No. 4, p. 69+.
- Manes Rossi, F. (2015), "Public sector accounting and auditing in Italy", in Brusca, I., Caperchione, E., Cohen, S. and Manes Rossi, F. (Eds), *Public Sector Accounting and Auditing in Europe. The Challenge of Harmonization*, Palgrave Macmillan, Basingstoke, pp. 125-141.

- Manes Rossi, F., Cohen, S., Caperchione, E. and Brusca, I. (2016), "Harmonizing public sector accounting in Europe: thinking out of the box", *Public Money & Management*, Vol. 36 No. 3, pp. 189-196.
- Martin, R.B. and Waymire, T.R. (2017), "Filling the demand for municipal government accountants: the benefits of a governmental and not-for-profit accounting course", *Journal of Accounting Education*, Vol. 40, pp. 43-54.
- Nurunnabi, M. (2015), "The impact of cultural factors on the implementation of global accounting standards (IFRS) in a developing country", *Advances in Accounting*, Vol. 31 No. 1, pp. 136-149.
- Oldfield, C. (2017), "Changing times: a changing public sector may require changes to public management education programmes", *Teaching Public Administration*, Vol. 35 No. 1, pp. 8-21.
- Pal, L.A. and Clark, I.D. (2016), "The MPA/MPP in the Anglo-democracies: Australia, Canada, New Zealand, the United Kingdom, and the United States", *Policy and Society*, Vol. 35 No. 4, pp. 299-313.
- Parker, L.D. (2002), "It's been a pleasure doing business with you: a strategic analysis and critique of university change management", *Critical Perspectives on Accounting*, Vol. 13 Nos 5/6, pp. 603-619.
- Pina, V., Torres, L. and Yetano, A. (2009), "Accrual accounting in EU local governments: one method, several approaches", *European Accounting Review*, Vol. 18 No. 4, pp. 765-807.
- Pollitt, C. and Bouckaert, G. (2011), *Public Management Reform: A Comparative Analysis – New Public Management, Governance, and the Neo-Weberian State*, 3rd ed., Oxford University Press, Oxford.
- PwC (2014), "Collection of information related to the potential impact, including costs, of implementing accrual accounting in the public sector and technical analysis of the suitability of individual IPSAS standards", PricewaterhouseCoopers, available at: <https://ec.europa.eu/eurostat/documents/1015035/4261806/EPASAS-study-final-PwC-report.pdf> (accessed November 24, 2018).
- Reichard, C. (2017), "Academic executive programs in public administration and management: some variety across Europe", *Teaching Public Administration*, Vol. 35 No. 1, pp. 126-138.
- Reichard, C. and Schröter, E. (2018), "Education and training in public administration and management in Europe", in Ongaro, E. and van Thiel, S. (Eds), *The Palgrave Handbook of Public Administration and Management in Europe*, Palgrave Macmillan, London, pp. 41-60.
- Shivaswamy, M.K. and Hanks, G. (1985), "Attitudes towards governmental accounting: are students turned off?", *The Government Accountants Journal*, Vol. 4 No. 3, pp. 58-61.
- Thom, M. (2019), "Teaching public financial management: an integrated approach to a critical subject", *Teaching Public Administration*, Vol. 37 No. 1, pp. 92-106.

Further reading

- EC (2013), "Report from the commission to the council and the European parliament. Towards Implementing Harmonised Public Sector Accounting Standards in Member States. The Suitability of IPSAS for the Member States", available at: <http://eur-lex.europa.eu> (accessed November 24, 2018).
- Howieson, B. (2003), "Accounting practice in the new millennium: is accounting education ready to meet the challenge?", *The British Accounting Review*, Vol. 35 No. 2, pp. 69-103.
- ICGFM (2013), "IPSAS: compilation guide for developing countries", International Consortium on Governmental Financial Management, available at: www.dphu.org/uploads/attachments/books/books_3473_0.pdf (accessed November 24, 2018).
- IMF (2011), "Government finance statistics manual: compilation guide for developing countries", International Monetary Fund, Washington, DC.

About the authors

Berit Adam is Full Professor in the Department of Public Administration at the Berlin School of Economics and Law. Her research and professional interest are focused on public sector and not-for-profit accounting and financial reporting. She is participating in several professional networks, such as CIGAR and EGPA.

Isabel Brusca is Professor in the Department of Accounting and Finance at the University of Zaragoza. Her research and professional interest are focused on public sector accounting. She has participated in numerous research projects in this field and is the author of several books and papers in prestigious journals. She is member of several research groups and networks, such as the CIGAR and EGPA, and has been consultant of the Committee on Local and Regional Democracy (CDLR) of the Council of Europe. ORCID ID: <https://orcid.org/0000-0002-2897-1744>.

Eugenio Caperchione is Professor of Public Management and Public Sector Accounting at Modena and Reggio Emilia University, Italy. His main research area is public sector accounting, and he privileges the comparative approach. He has published extensively on this subject, and has taken intensively in the work of CIGAR network (Comparative International Governmental Accounting Research – www.cigar-network.net), where he is serving as the Chairman of the Board; and of EGPA, European Group for Public Administration, co-chairing the XII Permanent Study Group, Public Sector Financial Management. <http://orcid.org/0000-0003-1493-718X>. Eugenio Caperchione is the corresponding author and can be contacted at: eugenio.caperchione@unimore.it

Dr Jens Heiling is Senior Manager within the Financial Accounting and Advisory Services Department of EY Germany and has over 15 years of experience in Public Financial Management with a focus on International Public Sector Accounting (IPSAS) and European Public Sector Accounting Standards (EPSAS). He serves a number of national and international public institutions and governments in the area of public sector financial management. From end of 2011 to beginning of 2013, he was seconded to the IPSAS-Board as a Technical Manager working on a project on First-time Adoption of Accrual-Basis IPSAS.

Susana Margarida F. Jorge is Tenured Professor with accreditation at the Faculty of Economics, University of Coimbra, Portugal Affiliated researcher of CICP – *Centro de Investigação em Ciência Política* (Research Centre in Political Science), University of Minho, Braga, Portugal. Susana is Lecturer in Public Sector Accounting and in Business Financial Accounting; and Researcher in Public Sector Accounting and Management, especially focusing on financial reporting and in Local Government. ORCID ID <http://orcid.org/0000-0003-4850-2387>.

Francesca Manes Rossi is Associate Professor of Accounting at Salerno University, where she teaches and conducts research on accounting and auditing. Her main areas of research regard performance measurement in local government and cultural organizations, intellectual capital, sustainability and integrated reporting, auditing and accounting standards both in the private and public sectors. She has developed special skills in the field of IAS/IFRS and IPSASs and is co-chair of the XII Permanent Study Group of EGPA. ORCID ID <https://orcid.org/0000-0001-9617-4379>.