Documento de Trabajo 2003-07

Facultad de Ciencias Económicas y Empresariales

Universidad de Zaragoza

Harmonisation at the European Union: a difficult but needed task.

Ana Yetano Sánchez de Muniaín

Department of Accountancy and Finance, University of Zaragoza (Spain)

Abstract: New Public Management (NPM) is a cluster of techniques that guide the public sector towards modernisation and innovation and accountancy is one of the matters being reformed. In the recent years, local governments have initiated, with different intensities, important changes in their accounting systems. Nevertheless, these changes have had different effects in each country and this affects comparability. Harmonisation tries to allow comparison by eliminating differences. In this paper, firstly, we analyse the degree of harmony between the annual accounts of European Union local governments, taking the IPSAS of the IFAC as a reference. Secondly, we analyse whether the information disclosed was enough to satisfy certain objectives.

Keywords: local government, annual accounts, harmonisation.

JEL classification: H70, J58.

Acknowledgements: The study has been carried out with the financial support of the National R&D Plan Research Project SEC2001-2433 and the Research Grant AP2001-2458.

Address: Ana Yetano Sánchez de Muniaín. Departamento de Contabilidad y Finanzas. Facultad de Ciencias Económicas y Empresariales. Universidad de Zaragoza. Gran Vía, 2. 50005, Zaragoza. España. E-mail: ayetano@unizar.es.

1- Introduction

During recent decades, the public sector has been reformed in many ways according to the practices of the New Public Management (NPM), which have spread globally (Hood, 1991). Broadly speaking, NPM is a set of new techniques and procedures mainly adapted from the private sector (Power, 1994, 43). Nowadays, many countries are carrying out reforms to modernise and to innovate their accounting systems as a result of NPM postulates. For Broadbent and Guthrie (1992) there was a need of a new accounting system useful for decision making, control and accountability, since accounting is a central aspect in the change to a market approach.

Because States have the power to raise funds through taxation, Public Accounting is characterised by the principle of democratic control over the use of the funds (Pallot, 1992). Between providers and users of public money there is a coercive relationship, which gives a special relevance to accountability in the public sector. Accountability, viewed in this way, is based on the citizen's right to know and it is also the cornerstone of the financial statements elaborated by the government (GASB, 1987, 20; Coy *et al*, 2001). Annual accounts, according to Ingram and Copeland (1981, 840), are the principal vehicle of information available for citizens and other stakeholders. The financial statements are considered a key accountability tool for different users.

All the reforms also have implications for the accounting obligations of local governments, they are the closest institutions to citizens, and for this reason, they ought to elaborate information useful for management, for political decision-making and also for accountability in a broad sense, which means including the media and citizens interested in the management of public funds. Accordingly to Allen and Sanders (1994), the growing relevance of the local governments' financial statements is also justified by the increasing amount of money managed by these entities in the exercise of their competencies.

Ryan *et al.* (2002) have emphasized that there has been all over the world, although with different intensities, a regulation and modernisation of the contents of local government annual accounts with the objective of improving the quality of financial reports. Nevertheless, the annual accounts are not an end in themselves. On the contrary, they are the only way for those users who have limited authority, access or resources to obtain this kind of information (GASB, 1987, 12) and who have the right to

be informed about public entities' activities. In this sense, Gray and Jenkins (1993) suggested that accountancy is an information system which must be judged for its contribution to an effective management as well as for its contribution to the quality and efficiency of the public services.

Determining if the financial reports and the information system fulfil accountability needs depends upon the user of the reports and the use given to them (Kravchuk y Voorhees, 2001). On one hand, the information needs of the various stakeholders must be satisfied through financial information, which has been widely recognised as an essential tool to satisfy accountability relationships, although not the only one. On the other hand, the annual accounts need to be completed with budgetary information and with non-financial information like performance indicators.

In the process of improving public accountancy, harmonisation is beginning to arouse interest among the professionals and academics, both in a national and international context. Harmonisation allow making comparisons of international financial accounts easier, faster and cheaper (Carlson, 1997). Through harmonisation the free flow of comparable financial information, a necessary condition of the EU objective of a common market (Cañibano y Mora, 2000), can be reach. The justifications of the need of harmonisation in the private sector, mainly based on the market globalisation and the related stock market needs, are not applicable to the public one. Nevertheless, as Brusca and Condor (2002) point out, there are other reasons that justify the harmonisation process in the public sector. These reasons are possibility of emit public bonds in international markets and ask for loans to international institutions, aid to the international elaboration and comparison of macroeconomic accounting, make easier the job of International Organizations that use information from different countries, development of Generally Accepted Accounting Principles (GAAP), and aid to the modernisation of the accounting system of less developed countries. Focused in the European Union environment, the authors add other reasons, the need of consolidate accounts to get a picture of the Community, the need of equal treatment for grants (see http://europa.eu.int/comm/regional policy/themes/urban es.htm) and dues of the European Union, the need to compare the situation of the different countries, the need of guarantee the proper functioning of the common market, and the utility of having a benchmark of reference for the European professionals of public accounting and auditing (Brusca and Condor, 2002). Harmonisation in the public sector also avoids the

political manipulation of the annual accounts, it makes mandatory some information an the politicians cannot decide by their interest what must be discloses.

Harmonisation processes are being carried out in the public sector. The efforts made to set accounting standards for the public sector by the Public Sector Committee (PSC) are especially important. This committee is integrated in the International Federation of Accountants (IFAC) and it was created to direct and to co-ordinate internationally the different needs related to public sector financial reports, accountancy and audit (IFAC, 2003, 10). Nowadays, twenty standards called International Public Sector Accounting Standards (IPSAS)¹ exist as a result of the PSC activity. These standards are drawn primarily from International Accounting Standards (IAS) which were created by the International Accounting Standards Board (IASB) for the private sector. In the European context we have to bear in mind that the Commission of the European Community has decided to adopt the IPSAS to change the accounting framework and to modernise the information systems underpinning it.² Hence, it seems convenient for the European Community countries to adopt these standards in the future. The Public Sector Committee of Federation of Experts Comptables, is also carrying out harmonisation efforts at the European level, but it hasn't issued standards.

The aim of this paper is to analyze the degree of harmony of the annual accounts elaborated by EU local governments with more than 500.000 inhabitants taking the IPSAS as a reference. Our aim is to present to what extent the information disclosed by the local governments agrees with these standards.

2- Background

As Cañibano and Mora (2000, 351) point out "it is important to clarify the different uses of the term "accounting harmonisation" in the literature and previous research" for being able to understand the aim and conclusion of a paper dealing with it. The main contributions to the concept harmonisation were developed by the private sector literature but unlike the justifications for the harmonisation process they are applicable to the public one.

The objective of harmonisation is to lead financial reports to a higher degree of comparability (Wolk and Heaston, 1992). Accordingly to Tay and Parker (1990), it is a process which seeks to eliminate the diversity of accounting practices, while harmony is

a state where the entities are clustered around one or a few of the available procedures. For Van der Tas (1992), it is a process of co-ordination. In sum, harmonisation represents the efforts undertaken by legislators and accounting standards setters to reduce the diversity of accounting treatments used to register transactions or to elaborate balances (Aisbitt, 2001). While standarisation is a process towars uniformity (Nobes and Parker, 2000 and Tay and Parker, 1990). This is to say, standarization is a rigid process were all must do the same, whereas harmonisation is a conciliatory approach easier, even its difficulties, to reach (Cañibano and Mora, 2000).

Van der Tas (1988) establishes two classifications for the harmonisation concept. On the one hand, he distinguishes between formal and material harmonisation, which were also denominated *de jure* and *de facto* (Tay and Parker, 1990), the former being related to uniformity between accounting standards and legislation and the latter associated with the annual accounts. Futhermore, the author differentiates between measurement harmonisation, which analyses the diversity of the applied accounting methods, and disclosure harmonisation, which tests the extent of the information disclosed through the annual accounts. In addition, spontaneous harmonisation takes place without any standardisation process being initiated.

Nevertheless, the backbone of the work of Van der Tas (1988) is the development and adaptation of three concentration indices, which determine to what extent harmonisation has taken place: H-index, I- index and C-index. There is wide range of works applying these indices, first of all, the works of Van der Tas (1988, 1992), Emenyonu and Gray (1992, 1996), Herrmann and Wayne (1995) and Krisement (1997) which are concerned with material measurement harmonisation. This aspect is also studied by Archer *et al.* (1995), although they introduce some modifications to the C-index that will later be adopted by Aisbitt (2001). This methodology has been improved by Pierce and Weetman (2002), they analyse and propose solution for the problem of non- disclosure. The authors highlight the importance of distinguishing between non-disclosure when the requirement is applicable or non- applicable.

Other kind of index is the one constructed by Cooke (1989). He elaborated index to measure the extent of the information disclosed by 90 Swedish companies (disclosure harmonisation). The index was composed of 224 items which he considered should be included in the annual accounts. Each item is considered a dichotomous variable; he assigned the value one if the information was provided and zero if not. Weightings were

not used, so each item had the same importance. But, the index was modified to avoid penalising a company for those items that it need not disclose.

In the same trend, Freedman and Stagliano (1992) analyse the degree of social disclosure in the European Community, by developing an index which measure the level of disclosure for four different social categories.

Other way to analyse the material harmonisation is using statistical modeling³. Accounting literature about formal harmonisation is less frequent, mainly due to the problems that the analysis of international legislation presents. Nevertheless, there are some works related to this topic, such as Garrido *et al.* (2002), Lainez *et al* (1996), Nair and Frank (1981) and Rahman *et al.* (1996). Although works about material harmonisation give a more real perspective of the accounting situation, Rahman *et al.* (1996) argued that formal harmonisation is a core factor to attain material harmonisation. But we must bear in mind, as Van der Tas (1988) reflects, that material harmonisation can be spontaneous without needing previous standards or legislation.

A review of public sector literature shows that it is focused on research into annual accounts or comparability of standards and legislation. The lack of works about formal or material harmonisation is due to the difficulties of talking about harmony in the public sector.

Ingram (1986), analyses the relationship between an index of compliance with the fund accounting model for local government and bond risk measures. This model was criticised by Chan because the elaboration of the index was complicated and subjective.

Later, Ingram and DeJong (1987) examined empirically the association between the amount of financial information at local government level and the economic incentives for local managers to offer this type of information. They compared the information of the local governments selected that require compliance with Generally Accepted Accounting Principles (GAAP) with those local governments that follow their state disclosure practices and finally with those that do not regulate local government financial disclosure.

Allen and Sander (1994) carried out a study about the political factors that explain the changes in the information disclosed by the local governments, based on a report made by Ingram and Robbins (1987) about the information disclosed by American local governments. They made a similar survey to complete the research of their predecessors.

Pina and Torres (1996) used the Cooke index to study whether governmental accounting information was enough to satisfy the accounting objectives declared. To do so, they compared the central government annual accounts of the United States, Canada, Sweden, New Zealand, Australia and Spain. Torres and Pina (2003) also carried out, with a similar methodology, a comparison between the disclosure of information in the financial reports of the local governments of the USA, Spain and the IPSAS of the IFAC.

Ryan *et al.* (2002) compare the information disclosed by Queensland local governments. They elaborate a Local Government Accountability (LGA) index, which is composed of three sections. The first section is dedicated to general information, the second is about performance and the third one is related to financial information aspects. Each section integrates different items that are scored on a 0-5 scale depending on the quality of the information. The study has been carried out both weighted and unweighted.

Lim and Mckinnon (1993) examined the influence of political visibility for voluntary disclosure, they found that voluntary disclosure of financial and non-financial information is positively related with the political visibility when the information is of non-sensitive but not correlation was founded when information is of sensitive nature.

Hartung (1992) develops a political-economic model based on literature to explain the state government disclosure choices. She found that the level of disclosure is dependent on political environment and institutional factors.

Gordon *et al.* (2002), analysed the factors associated with the extent of disclosure of the annual accounts in institutions of higher education. They constructed a ratio of disclosure (total disclosure score/ total possible disclosure). They found that institution size, status, high tuition rates and low dependence on tuition are positively related with the level of disclosure. Coy and Dixon (2004), Coy *et al* (1993, 1994) and Dixon *et al* (1991) analyse the content of New Zealand's Universities through a disclosure index, Public Accountability Index (PAI), using a Delphi study to determine the items, it is focused in the stakeholder interests.

Brusca and Condor (2002), from a theoretical perspective, studied the degree of accounting diversity and its reasons, as well as the benefits and problems of an international accounting harmonisation at local government level.

In order to understand the lack of research into public sector harmonisation, we must bear in mind that in the private sector harmonisation is perceived as necessary because of market globalisation, whereas, in public accounting we need other arguments such as the existence of a common European market or the need for comparability to access financial aids from international organizations. The process is also affected by the late development of public accounting systems. Also, there is a lack of studies analysing the financial and operative benefits of adopting the IPSAS by the public sector entities. All these aspects have delayed the harmonisation process and, more specifically, accounting research into this matter.

In a similar vein, we must add other general factors like political influence and the existence in the European environment of Anglo-American and Continental countries (Haller, 20002). Wolk and Heaston (1992) add to these factors the heterogeneity of users and the agency environment where accountancy information is elaborated.

3- Research methodology

This paper is concerned with the analysis of material harmonisation, because it analyse the annual accounts not the legislation or standards, and disclosure harmonisation, because we study the information included in the financial statements (Van der Tas, 1988). That is to say, we analysed if the annual accounts of the selected local governments disclose certain information. In addition, we tried to verify two measurement harmonisation aspects, firstly, the adoption of accrual-based accounting and, secondly, the consolidation of the annual accounts. We included both aspects because elaborating consolidated annual accounts and using the accrual basis have important advantages for comparability (Daniels and Daniels, 1991). In fact, the decentralisation and devolution of the public services of local governments have made it impossible to reflect the situation of the local governments without consolidating their annual accounts.

The first tool used in our research is the index created by Cooke (1989) because through a disclosure index we can provide by a single figure summary indicator the entire content of the report (e.g Ahmed and Courtis, 1999; Coy and Dixon, 2004). As a result Public accounting reforms the financial accounts are now more close to private sector ones (Brusca y Condor, 2002), the better example is New Zealand where financial accounts of the public sector follow General Accounting Accepted Principles (GAAP) of the private sector. This fact allows us to use, in the public sector, methodology developed to analyse commercial financial accounts, just adding some modifications to reflect the particularities. In this case, we have changed the items that conform the index develop for Cooke. Dichotomy for each item was used. We have opted for conceding the same importance to all the items selected. Lapsley (1992) explains that there is a general agreement among researchers about who the users of the annual accounts are but there are major doubts about the information that satisfies their needs. Consequently, we have not considered any information more important because its depends on the user. In addition, we made no attempt to give additional weight for the quality or quantity of the disclosure.

A major task was to establish which items were going to conform the index, in other words, we sought those aspects, that in our opinion, ought to be included in the annual accounts. Because we believe that the IPSAS of the IFAC are the best way to achieve harmony, we have used them to select the items. In particular, we have used IPSAS 1, 6, 17 and 19 (IFAC, 2003). The index was complemented with an item about the audit report. Table 1 shows the 19 items selected, some of them divided, bringing the maximum score to 26.

Disclosure index (DI)=
$$\sum_{i=1,...,n} Xi$$

where
$$X = 1$$
 if the item Xi is disclosed and 0 if not

We corrected the index, in the same way as Cooke (1989), to eliminate those aspects that a city did not have to disclose. This is because the index includes provisions and contingent liabilities, both of which have to appear just in case they exist. So we ensured that those cities that disclosed this information would improve their index and those local governments that did not disclose it would not be affected, because there is a lack of evidence about the reason for their absence in the annual accounts.

Total index
$$(TI) = ID/Z$$

where Z is the number of items applicable to each city.

The constructed index is going to allow us to reflect which cities disclose the information of their annual accounts according to the content of the IPSAS, and at the same time, to verify which local governments disclose a greater amount of information.

Secondly, we took Pina and Torres (1996) research as a point of reference to analyse if the information provided by the local government was enough to fulfil the following objectives:

- 1- to provide information on the execution of the budget and on the legal compliance of the management of public funds;
- 2- to allow the evaluation of the financial position of the local government, facilitating information on their assets and how they are financed;
- 3- to determine the financial and economic result of the local government in order to establish if the services are financed with resources of that fiscal period and potential future financial needs;
- 4- to provide information on economy, efficiency and effectiveness.

Now, we have an index for each objective and a global index, which will be weighted, because there are items that offer information for more than one objective.

Our study is concerned with the analysis of the harmonisation of European local governments. We recognise the necessity of offering comparable accounting information in the European Union environment. For this reason, we focused our research on the annual accounts of those European cities with more than 500.000 inhabitants³, because these local governments are more likely to have enough resources to elaborate their financial statements annually. The resulting sample contains the following cities: Vienna, Brussels, Helsinki, Bourdeaux, Lille, Lyon, Marseilles, Paris, Berlin, Bremen, Dortmund, Duisburg, Düsseldorf, Essen, Frankfurt, Hamburg, Hannover, Köln, Munich, Stuttgart, Dublin, Genoa, Palermo, Roma, Turin, Luxembourg, Lisbon, Barcelona, Madrid, Zaragoza, Stockholm, Birmingham, Edinburgh, Glasgow, Leeds, Liverpool, London, Manchester and Sheffield.

Within the European Union we found countries pertaining to the Anglo-American, Nordic, Germanic and South-European cultures. This will allow us to appreciate the differences that exist between those environments because these cultures are usually differentiated not just according to accounting reforms but also for all aspects related to NPM (Pina y Torres, 2002).

The main problem of a comparative study within the EU countries is the diversity of official languages, because the annual accounts may not be available in a language that the researcher can understand and concepts can also have different meaning⁴.

4- Results analysis

Table 2 (see also annexe 1) gathers the results obtained through the methodology of Cooke. It shows the percentage of disclosed information for each city. The sample can be divided into four groups. Those cities where the information percentage is more than 70%, those situated between 40% and 70%, those where the percentage is less than 40% and, finally, the local government that just prepare the budget and, as a result, their index is zero⁶.

Barcelona, Stockholm, London, Birmingham, Manchester, Leeds, Sheffield, Glasgow and Edinburgh disclose information closest to the IPSAS content, because these cities present the greatest amount of information in their annual accounts and, in addition, they are audited. All of them are elaborating consolidated financial reports, although London, Birmingham, Sheffield and Glasgow do not disclose the list of controlled entities. This shows that their financial accounting is coherent with NPM postulates. This group comprises Anglo-Saxon and Nordic cities, and Barcelona, which is the only South-European local government with an important development of NPM techniques at local level.

In this group, nearly all the cities present cash flow statements -except Barcelona-, statements of responsibilities – except Stockholm-, statements of accounting policies, statements of changes in net asset/equity and more information about fixed assets. Furthermore, they include contingent liabilities information and they draw up a separate report with performance indicators.

Brussels, Helsinki, Lille, Marseilles, Frankfurt, Genoa, Turin, Madrid and Liverpool integrate the second group. In this case, less than half of the local governments consolidate their annual accounts – Helsinki, Marseilles, Madrid and Liverpool-. Only Helsinki, Marseilles, Turin, Madrid and Liverpool make their financial reports under the accrual basis. None of them include an audit report. These local

governments belong to Germanic, South-European, Nordic and Anglo-Saxon countries. Surprisingly, while the majority of the Anglo-Saxon local governments are in the first group, Liverpool shows the worst development in this environment.

Only Marseilles and Lille present a statement of responsibilities. In addition, there is a sharp decrease in the fixed assets index. Merely half of the local governments present a statement of accounting policies. They do not include a cash flow statement - except Helsinki. Nevertheless, in contrast with the first group, a greater percentage of the local governments elaborate comparative statements between budget and annual accounts. This shows how this statement usually disappears when the accounting system is similar to the private sector model and it justifies why this statement is less usual in the first group. Another relevant aspect of this group is that Frankfurt, Genoa, Palermo and Lisbon elaborate performance indicators but they include them in the annual account while the first group emit them in a separate report.

Hamburg, Munich, Köln, Dortmund, Stuttgart, Dusseldorf, Duirsburg, Hannover, Vienna, Zaragoza, Lyon, Paris, Dublin and Palermo form the third group. They do not consolidate their annual accounts. Only Zaragoza and Stuttgart produce financial reports under the accrual basis. None of them include an audit report. These cities are characterised by elaborating a statement of financial performance whereas only a few of them introduce a statement of financial position, present comparative information of previous exercises or make comparative statements between budget and annual accounts.

Berlin, Essen, Bremen, Bourdeaux, Rome, and Luxembourg constitute the last group. These local governments present only budgetary information. For this reason, they ought to make a great improvement and development to satisfy current needs of accounting systems.

Finally, we are going to analyse if annual accounts satisfy the declared objectives of accounting information. Table 3 (see also annexe 2) shows the analysis for the first two clusters. Groups three and four have been excluded due to the lack of information of their annual accounts.

Budgetary information

The cities of the first group attain better scores because their annual accounts are more complete and have a greater amount of information. For this reason, they are not

penalised for the absence of comparative statements between budget and annual accounts⁷.

Financial position

Again, the first group reflects a better situation. Manchester and London offer almost all the information required to satisfy this objective and the rest of the cities that conform this group provide really complete information about their financial position. Stockholm has the minimum score within this group, though this result is better than the maximum of the second group. In fact, the second group only present about half of the information related to this objective.

Although Helsinki, Marseilles, Madrid and Liverpool are in the second group, we must emphasize that they are consolidating their annual accounts, so they show the financial situation of the local government in a better way.

Results of the operations

In the case of the first group, five cities reach the maximum score - London, Birmingham, Manchester, Sheffield and Edinburgh- the others are quite near to this maximum. The lowest scores are for Barcelona, Leeds and Stockholm⁸.

In the second group there is a great variation from the four points scored by Genoa and Turin up to the nine points of Liverpool and Marseilles. None of these cities offer information about contingent liabilities which makes us wonder if they really do not exist or if there is simply no information about them.

Economy, efficiency and effectiveness

The main difference is due to the elaboration of performance indicators. All the cities of the first group elaborate them although in a separate report, whereas in the second group only a few include some indicators in their annual accounts. This shows, as Brusca y Condor (2002) point out, that the Anglo-Saxon local government are more willing to include information relative to performance measures. An exhaustive analysis of this objective would require judging the quality of the indicators and determining whether value for money audits are carried out.

It is a fact that the cities with a better level of information use an independent report to collect performance indicators. This feature can be justified as a consequence of the importance given by these cities to this kind of information. However, it would be desirable that at least a summary of the report appeared as an appendix of the annual accounts.

5- Conclusions

The improvement of local government accounting information is one of the objectives of NPM and, like this trend, accounting shows an unequal development in the different countries. Analysing the European context, we can observe sharp differences between Nordic, Germanic and South-European countries. The former as well as Anglo-American show an important level of NPM implementation, whereas Germanic and South-European have greater problems for implementing NPM postulates (Torres and Pina, 2002). Nevertheless, all of them are interested in offering information useful for decision making and satisfying accountability relationships.

In recent years, local governments have shown a growing interest in offering quality and transparent information. This information is based on the citizens' right to know how the money obtained through taxation is being spent because taxes are collected coercively.

NPM initiatives have a different development in each country (Hood, 1995) and, as a result, accounting harmonisation is needed. The objective will be to eliminate the existing differences between public accounting systems. In the European environment, harmonisation is an unavoidable process to ensure the free flow of information. We consider that this process must be characterised by the adoption of the IPSAS of the IFAC for all European countries. By doing so, countries favour equal treatment of European grants, benchmarking between similar cities and also informing the European citizen about the environment where he lives.

We have noticed that it is too early to speak about a real harmonisation process in local government accounting, and that the lack of homogeneity in financial accounts at international level, and especially at the EC level, is still a feature of the public sector accounting (Brusca y Condor, 2002). We have obtained four differentiated groups through the analysis of the annual accounts. Indeed, we have found dissimilarities within the countries. In all the countries —except the United Kingdom- where we have studied more than one city (Italy, France, Germany and Spain) we have found unequal

formats, content and quality of the financial reports. This fact represents another problem for reaching harmonisation.

We have seen how the Germanic and South-European cities – except Barcelona-still elaborate accounting information influenced by budgetary information: they usually pay greater attention to the budget and some of them merely prepare the budget. Although this statement is an integral part of political and organisational life, it has limitations to satisfy all the objectives of financial information (Broadbent and Guthrie, 1992).

We have distinguished four groups, two of them more advanced reflecting the interest for improving their accounting information, and the other two less developed in terms of accounting reforms and with many changes left to be carried out. The United Kingdom cities – except Liverpool-, Barcelona and Stockholm are offering information characterised by its soundness, including most of the aspects recommended by the IPSAS. We have corroborated, at the same time, that the first group satisfies all the objectives of the annual accounts, whereas the second group offers less information for each objective, although no objective is neglected.

As we have showed the local government selected can be divided in high disclosure and low disclosure, this classification, with some exception is coincident with Anglo-Saxon and Nordic countries versus Continental (Germanic and South- European). The existence of these differences is due to "the legal systems, the organisation of the public sector, specific objectives of public financial reporting, principal users of financial reporting, financial resources suppliers, impulse of public accounting regulatory bodies, interest and formation of professional and political and administrative environment in which systems operates" (Brusca and Condor, 2002, 158).

To summarise, we can conclude that harmonisation is quite a complicated process and has a long way to go in the European environment. But as Brusca y Condor (2002) and Montesinos and Vela (2000), we expect to see a convergence of public accounting systems. Material harmonisation, in other words, annual accounts harmonisation, must complete the formal harmonisation effort reflected through the IPSAS. Hence, we highlight that the adoption of the IPSAS is a vital step to reaching harmony in the EU environment, because it will not only allow comparable reports but also offer an important help for those countries with less developed accounting systems. But the

adoption of the IPSAS has also its difficulties. Firstly, these standards are not mandatory and unless the European Union establishes that the IPSAS must be applied by local government it is unlikely that countries will decide its application in local governments voluntarily. Secondly, as Brusca y Condor (2002) point out and our results show, the IPSAS are closer aligned to the Anglo-Saxon countries what make the adoption more difficult process for those local government pertaining to the Continental environment. Another important issue is the nationalism, Government may view that attempts of harmonisation an intent of alter its national sovereignty.

The overall contribution of this paper is to the knowledge of harmonisation in the public sector. We have showed the lack of harmony between the European local governments, but as we have justify it will be worthwhile reach the harmony in this context. Nevertheless, many efforts must been made for the local governments and for the European Union if we want to talk about harmony between European local governments annual accounts in the future. It would be also interesting have more contributions of academics and professional showing ways to better reach this objective.

Notes

- 1 IPSAS 1- Presentation of Financial Statements, IPSAS 2- Cash Flow Statements, IPSAS 3- Net Surplus or Deficit for the period, Fundamental Errors and Changes in Accounting Policies, IPSAS 4- The Effects of Changes in Foreign Exchange Rates, IPSAS 5- Borrowing Cost, IPSAS 6- Consolidated Financial Statements and Accounting for Controlled Entities, IPSAS 7- Accounting for Investments in Associates, IPSAS 8- Financial Reporting of Interest in Joint Ventures, IPSAS 9- Revenue from Exchange Transactions, IPSAS 10- Financial Reporting on Hyperinflationary Economies, IPSAS 11- Construction Contracts, IPSAS 12- Inventories, IPSAS 13- Leases: International Public Sector Accounting Standard, IPSAS 14- Events After Reporting Date, IPSAS 15- Financial Instruments: Disclosure and Presentation, IPSAS 16- Investment Property, IPSAS 17- Property, Plant and Equipment, IPSAS 18- Segment Reporting, IPSAS 19- Provisions, Contingent Liabilities and Contingent Assets, IPSAS 20- Related Party Disclosures.
- 2 This decision was adopted by Council in June 2002, as part of a new legal framework for sound financial management of the EU budget.
- 2 Cañibano and Mora (2000) make an extensive review of this kind of empirical works.
- 3 We have included the capitals of all the countries selected although they do not reach 500.000 inhabitants, this is the case of Luxembourg and Dublin. Also we have include some English cities with a population of nearly 500.000. Copenhagen, Malaga, Seville, Valencia, Athens, Milan, Naples and Amsterdam have been excluded because it was not possible to get their annual accounts.

- 4 For these reasons, much research is done through surveys to the Supreme Audit Institutions.
- 5 We have corrected the situation of three cities. Stockholm has a percentage near to 70% and, due to the qualitative features of its information, has been included in the first group. For a similar reason, Madrid and Helsinki have been included in the second group.
- 6 We can not carry out an exhaustive analysis of the budgetary information because it implies a deep study of the budget and that exceeds our research aim.
- 7 The first two are penalised because they do not present information about provisions and contingent liabilities, so we can not really conclude that they offer less information.

References

Ahmed and Courtis 1999 de harm escritorio

- Aisbitt S., (2001), "Measurement of Harmony of Financial Reporting Within and Between Countries: The case of the Nordic Countries", *The European Accounting Review*", Vol 10, N° 1, pp 51-72.
- Allen, A. and Sander, G.D., (1994), "Financial Disclosure in US Municipalities: Has the Governmental Accounting Standards Board Made a Difference?", *Financial Accountability and Management*, Vol. 10, No 3, pp 175-193.
- Broadbent, J. and Guthrie, J., (1992), "Changes in the Public Sector: A Review of Recent "Alternative" Accounting Research", *Accounting, Auditing and Accountability Journal*, Vol. 5, N° 2, pp 3-31.
- Brusca and Condor V., (2002), "Towards the Harmonisation of Local Accounting Systems in the International Context", *Financial Accountability and Management*, Vol. 18, N° 2, pp 129-162.
- Cañibano, L. and Mora, A., (2000), "Evaluating the stadistical significance of *de facto* accounting harmonization: a study of European global players", *European Accounting Review*, Vol. 9, N°3, pp 349-369.
- Carlson P., (1997), "Advancing The Harmonisation of International Accounting Standards: Exploring an Alternative Path", *The International Journal of Accounting*, Vol. 32, N° 3, pp 357-378.
- Chan, J.L., (1986), "Fund Reporting Municipal Risk: A discussion of Ingram's Test", Comtemporary Accounting Research, Vol. 3, No 1, pp 222-225.

- Cooke, T.E., (1989), "Disclosure in the Corporate Annual Reports of Swedish Companies", *Accounting an Business Research*, Vol. 19, No 74, pp 113-124.
- Coy, D. and Dixon, K. (2004) "The Public Accountability Index: Crafting a Parametric Index for Annual Reports", *The British Accounting Review*, Vol. 36, pp 79-106.
- Daniels, J.D. and Daniels, C.E., (1991), "Municipal Financial Reports: What Users Want", *Journal of Accounting and Public Policy*, Vol. 10, N°1, pp 15-38.
- Emenyonu E. N. and Gray S. J., (1996), "International Accounting Harmonization and the Major Developed Stock Market Countries: An Empirical Study", *The* International Journal of Accounting, Vol. 31, No 3, pp 269-279.
- Garrido, P., León, A. y Zorio, A., (2002), "Measurement of formal harmonization progress: The IASC experience", The International Journal of Accounting, Vol. 37, pp. 1-26.
- Gray A. and Jenkins B, "Codes of Accountability in the New Public Sector", *Accounting, Auditing and Accountability Journal*, Vol. 6, No 3, pp 52-67.
- Gordon T., Fischer M, Malone D. and Tower G., (2002), "A comparative empirical examination of extent of disclosure by private and public colleges and universities in the United States", *Journal of Accounting and Public Policy*, Vol 21, pp 235-275.
- Governmental Accounting Standards Board (GASB) (1987), Concepts Statement N° 1: Objetives of financial reporting, GASB, Stamford, Connecticut.
- Haller A., (2002), "Financial accounting developments in the European Union: past events and future prospects", *European Accounting Review*, Vol. 11, N° 11, pp 153-190.
- Hartung, R. (1992), "An Empirical Analysis of Theories on Factors Influencing State Government Accounting Disclosure", *Journal of Accounting and Public Policy*, Vol 11, pp 1-42.
- Herrmann and Wayne T., (1995), "Harmonization of Accounting Measurement Practices in the European Comumnity", *Accounting and Business Research*, Vol. 25, N° 100, pp 253-265.

- Hood C., (1991), "A Public Management For All Seasons?", Public Adminstration, Vol 69, N° 2, pp 3-19.
- Hood, C., (1995), "The "New Public Management" in the 1980s: Variations on a Theme", *Accounting Organizations and Society*, Vol. 20, No 2/3, pp 93-109.
- Ingram, R. W., (1986), "Test of the Fund Accounting Model for Local Governments", Comtemporary Accounting Research, Vol. 3, No 1, pp200-221.
- and Copeland, R.., (1981), "Municipal accounting information and the voter behavior", *The Accounting Review*, Vol. 56, No 4, pp 830-843.
- and DeJong, D.V., (1987), "The effect of Regulation on Local Government Disclosure Practices", *Journal of Accounting and Public Policy*", Vol 6, winter, pp 245-270.
- _____ and Robbins, W.A., (1987), "Financial Reporting Practices in Local Governments", Research report (Stamford, Ct.: Governmental Accounting Standards Board, 1987)
- International Federation of Accountans (2003), "Handbook of International Public Sector Accounting Standards", http://www.ifac.org.
- Kravchuk, R.S. and Voorhees, W.R., (2001) "The New Governmental Financial Reporting Model under GASB Statement N° 34: An Emphasis on Accountability", *Public Budgeting and Finance*, Vol. 21, N° 3, pp 1-30.
- Laínez Gadea, J.A., Callao Gastón, S. and Jarne Jarne, J.L., (1996), "Información exigida por las bolsas de valores: Análisis empírico de la armonización internacional", *Revista Española de Financiación y Contabilidad*, Vol. 25, pp. 35-56.
- Lapsley, I., (1992), "User Needs and Financial Reporting- A Comparative Study of Local Authorities and The National Health Service", *Financial Accountability and Management*", Vol. 8, No 4, pp 281-298.
- Lim, S and McKinnon, J., (1993), "Voluntary Disclosure by NSW Statutory Authorities: The Influence of Political Visibility", *Journal of Accounting and Public Policy*, Vol 12, pp 189-216.

- Montesinos, V. and Vela, J.M., (2000), "Governmental Accounting in Spain and the European Monetary Union: A Critical Perspective", *Financial Accountability and Management*, Vol. 16, No 2, pp. 129-150.
- Nair, R.D. and Frank, W.G. (1981), "The hamonization of International Accounting Standards", *International Journal of Accounting*, Fall, pp.
- Nobes, C.W. and Parker, R., (2000), *Comparative International Accounting*, 6th ed, London: Financial Times/Prentice-Hall.
- Pallot, J., (1992), "Elements of a Theoretical Framework for Public Sector Accounting", *Accounting, Auditing and Accountability*, Vol. 5, No 1, pp 38-58.
- Pierce, A. and Weetman, P., (2002), "Measurement of *de facto* Harmonisation: Implications of non- disclosure for research and planning interpretation", *Accounting and Business Research*, Vol. 32, N° 4, pp. 259-273.
- Pina V. and Torres L. (1996), "An International Comparison of Governmental Annual Accounts", *Research in Governmental Nonprofit Accounting*, Vol. 9, pp 123-145.
- ______(2002), "The OECD'S Myth of the NPM Convergence:

 Developments in Central Governments of E.U. Continental Countries". EIASM

 International Conference. Dublin.
- Power, M, (1997), The Audit Society: Rituals of Verification, OUP, Oxford
- Rahman, A., Perea, H. and Ganeshanandam, S., (1996), "Measurement of formal harmonization in accounting: an exploratory study", *Accounting and Business Research*, Vol 26, No 4, pp 325-339.
- Ryan, C., Stanley, T. and Nelson, M, (2002), "Accountability disclosures by Queensland local government councils: 1997-1999", *Financial Accountability and Management*, Vol. 18, No 3, pp 261-289.
- Torres, L. and Pina, V., (2003), "Local government financial reporting in the USA and Spain. A comparative study", *Spanish Journal of Finance and Accounting*, No 115, April, pp 153-183.
- Van der Tass L., (1988), "Measuring Harmonization of Finance Reporting Practice", *Accounting and Business Research*, Vol. 18, N° 70, pp 157-169.

- Van der Tass L., (1992), "Evidence of EC financial reporting practice harmonization", *The European Accounting Review*", Vol. 1, N° 1, pp 69-104.
- Wolk H.I. and Heaston P.H., (1992), "Toward The Harmonization of Accounting Standards: An Analytical Framework", *The International Journal of Accounting*, Vol. 27, pp 95-111.

Table 1

```
1 The council elaborate a Financial Statement 2 Financial statement prepared under the accrual basis (IPSAS 1, 1)
```

3 Statement of financial position (IPSAS 1, 19)

4 Tangible asset classified by class (IPSAS 1, 96.a)

5 Analysis of receivables (IPSAS 1, 96.b)

6 Provisions (IPSAS 1, 96.e)

7 Analysis of net assets/equity components (IPSAS 1, 96.f)

8 Statement of financial performance (by nature or by function) (IPSAS 1, 19)

9 Classifications of taxes and transfers (IPSAS 1, 104)

10 Statement of changes in net asset/equity (IPSAS 1, 19)

11 Cash flow statement (IPSAS 1, 19)

12 Statement of accounting policies (IPSAS 1, 19)

13 Notes to the financial statement (IPSAS 1, 19)

13.1 Information about Property, Plant and Equipment (IPSAS 17)

Depreciation methods used (IPSAS 17, 73)

Useful lives or depreciation rates used (IPSAS 17, 73)

Statement of tangible asset movements (IPSAS 17, 73)

Tangible assets accounting policies (IPSAS 17, 74)

13.2 Information about contingent liabilities (IPSAS 19)

Description of the nature of the contingency (IPSAS 19, 98)

The expected amount of the contingency (IPSAS 19, 98)

14 Comparison between budget and annual accounts (IPSAS 1, 22)

15 Comparative Information from previous exercises (IPSAS 1, 60)

16 Consolidation (IPSAS 6)

16.1 Present consolidated financial statements (IPSAS 6, 15 and 16)

16.2 List of controlled entities (IPSAS 6, 57)

17 Statement of Responsibilities (IPSAS 1, 17)

18 Provide additional information (IPSAS 1, 122 and 133)

18.1 Non-financial information (Performance indicators)

18.2 Reference to the relevant legislation governing the entity operations.

19 Audit report is attached to Financial Statement

(standard, paragraph)

Table 2

	DI	TI		DI	TI
AUSTRIA			IRLAND		
Vienna	6	25%	Dublin	6	26%
BELGIUM			ITALY		
Brussels	12	50%	Genoa	10	43%
FINLAND			Palermo	5	22%
Helsinki	9	39%	Rome	0	0%
FRANCE			Turin	10	43%
Bourdeaux	0	0%	LUXEMBOURG		
Lille	10	42%	Luxembourg	0	0%
Lyon	4	17%	PORTUGAL		
Marseille	13	57%	Lisbon	11	46%
Paris	4	17%	SPAIN		
GERMANY			Barcelona	21	88%
Berlin	0	0%	Madrid	9	39%
Bremen	0	0%	Zaragoza	7	30%
Dortmung	5	20%	SWEDEN		
Duisburg	8	33%	Stockholm	18	69%
Düsseldorf	6	25%	UNITED KIGDOM		
Essen	0	0%	Birmingham	22	85%
Frankfurt	11	46%	Edinburgh	22	85%
Hamburg	6	25%	Glasgow	20	77%
Hannover	8	33%	Leeds	21	81%
Köln	8	33%	Liverpool	13	54%
Munich	8	33%	London	22	85%
Stuttgart	6	26%	Manchester	23	88%
			Sheffield	22	85%

Table 3

1	_		_		,																		r	_							1						-
	E	Bru	ssel	s	I	Hels	inki	i		Lil	lle		Ma	ırse	ille	F	ran	kfur	t		Gen	oa			Turi	in		Lis	bon	1		Mad	drid		Live	rpod	ol
	0-1	0-2	0-3	0-4	0-1	0-2	0-3	0-4	0-1	0-2	0-3	0-4	0-1 0	-2 0	-3 0-4	0-1	0-2	0-3	0-4	0-1	0-2	0-3)-4	0-1)-2 0	-3 0-	4 0-1	0-2	0-3	0-4	0-1	0-2	0-3	0-4	0-1 0-2	0-3	0-4
Parcial	2	9	5	1	0	8	5	2	3	9	6	2	3 1	10	9 3	3	7	6	2	1	6	4	2	1	7	4	3 2	2 7	5	2	0	8	6	2	2 1	9	3
Total		•	•	17				15	•			20	٠	•	25	5		•	18			•	13			1	15	·	•	16				16	•		24
	В	Barc	elor	na	St	tock	hol	m	L	Lon	don		Birm	ning	ham	Ma	ancl	nest	er		Lee	ds		S	heff	ield		Glas	gov	N	Е	dink	ourg	h			
	0-1	0-2	0-3	0-4	0-1	0-2	0-3	0-4	0-1	0-2	0-3	0-4	0-1 0	-2 0	-3 0-4	0-1	0-2	0-3	0-4	0-1	0-2	0-3)-4	0-1	0-2	-3 0-	4 0-1	0-2	0-3	0-4	0-1	0-2	0-3	0-4			
Parcial	4	18	11	4	3	16	11	3	4	20	12	4	4 1	19	12 4	5	20	13	4	3	18	11	4	5	19	12	4 4	1 17	12	4	4	19	13	4			
Total				37			•	33	٠			40	·	•	39)		•	42			-	36		•	4	10			37				40			

⁰⁻¹ Budgetary information

⁰⁻² Financial position

⁰⁻³ Results of the operations

⁰⁻⁴ Economy, efficiency and effectiveness

Annexe 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	13.1	13.2	14	15	16	16.1	16.2	17	18	18.1	18.2	19	DI	TI
AUSTRIA																											
Vienna	1	0	0	0	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	6	25%
BELGIUM																											
Brussels	1	0*	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	12	50%
FINLAND																											
Helsinki	1	1	1	1	0	0	1	1	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	9	39%
FRANCE																											
Bourdeaux	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	0%
Lille	1	0*	0	1	0	1	0	1	1	0	0	1	3	3	0	1	0	0	0	0	0	0	0	0	0	10	42%
Lyon	1	0*	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	17%
Marseille	1	1	1	1	0	0	1	1	1	0	0	1	0	0	0	1	1	2	1	1	1	0	0	0	0	13	57%
Paris	1	0*	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	4	17%
GERMANY																											
Berlin	0	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	0	0%
Bremen	0	-	-	-	-	-	ı	-	1	ı	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	0	0%
Dortmung	1	0*	0	0	0	0	0	1	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	5	20%
Duisburg	1	0*	0	1	1	1	0	1	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	8	33%
Düsseldorf	1	0*	0	0	0	1	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	6	25%
Essen	0	-	-	-	-	-	-	_	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0%
Frankfurt	1	0*	1	1	1	1	0	1	1	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	11	46%
Hamburg	1	0*	0	1	0	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	6	25%
Hannover	1	0*	0	0	0	1	0	1	1	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0		8	33%
Köln	1	0*	0	1	0	1	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	8	33%
Munich	1	0*	0	0	0	1	0	1	0	0	0	1	1	1	0	1	1	0	0	0	0	1	1	0	0	8	33%
Stuttgart	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	26%

^{*}They do not diclose the basis (accrual or cash) used in the annual accounts.

Annexe 1

*They do not diclose the basis (accrual or cash) used in the annual accounts.

	1	2	3	4	5	6	7	8	9	10	11	12	13	13.1	13.2	14	15	16	16.1	16.2	17	18	18.1	18.2	19	DI	TI
IRLAND																											
Dublin	1	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	6	26%
ITALY																											
Genoa	1	0	1	1	0	0	1	1	1	0	0	1	1	1	0	1	0	0	0	0	0	1	1	0	0	10	43%
Palermo	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	5	22%
Rome	0	_	-	-	_	-	-	-	-	-	_	-	_	_	-	-	-	_	-	-	-	-	_	1	_	0	0%
Turin	1	1	1	1	0	0	1	1	1	0	0	0	1	1	0	1	0	0	1	0	0	1	1	0	0	10	43%
LUXEMBOURG																											
Luxembourg	0	_	-	-	_	-	-	-	-	-	_	-	_	_	-	-	-	_	-	-	-	-	_	1	_	0	0%
PORTUGAL																											
Lisbon	1	0*	1	1	0	1	1	1	1	0	0	0	1	1	0	1	1	0	0	0	0	1	1	0	0	11	46%
SPAIN																											
Barcelona	1	1	1	1	1	1	1	1	1	1	0	1	4	4	0	0	1	2	1	1	1	1	1	0	1	21	88%
Madrid	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	9	39%
Zaragoza	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	30%
SWEDEN																											
Stockholm	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0	1	2	1	1	0	0	1	0	1	18	69%
UNITED KIGDOM																											
Birmingham	1	1	1	1	1	1	1	1	1	0	1	1	6	4	2	1	1	1	1	0	1	0	1	0	1	22	85%
Edinburgh	1	1	1	1	0	1	1	1	1	0	1	1	6	4	2	1	1	2	1	1	1	0	1	0	1	22	85%
Glasgow	1	1	1	1	0	1	1	1	1	0	1	1	5	3	2	1	1	1	1	0	1	0	1	0	1	20	77%
Leeds	1	1	1	1	1	1	1	1	1	0	1	1	6	4	2	0	1	2	1	1	1	0	1	0	0	21	81%
Liverpool	1	1	1	1	0	0	1	1	1	0	0	1	2	0	2	1	1	1	1	0	0	0	1	0	0	13	54%
London	1	1	1	1	1	1	1	1	1	1	1	1	6	4	2	0	1	1	1	0	1	0	1	0	1	22	85%
Manchester	1	1	1	1	1	1	1	1	1	1	1	1	5	3	2	1	1	2	1	1	1	0	1	0	1	23	88%
Sheffield	1	1	1	1	1	1	1	1	1	0	1	1	6	4	2	1	1	1	1	0	1	0	1	0	1	22	85%

²⁴

Annexe 2

	Е	Bruss	sels		H	lelsi	nki			Lille	е		Ма	arse	ille		Fra	ank	furt		(Gen	oa			Tur	in			Lisbo	on		ı	Mad	rid		L	iver	pool	
	0-1	0-2)-3 ()-4	0-1 (0-2 ()-3 (0-4)-1 (0-2 ()-3 0-	4	0-1 0	-2 0	-3 0-4	4 0)-1 0	-2 0	-3 0	-4	0-1 0	-2 0)-3 O	-4 (0-1 0)-2 ()-3 C)-4	0-1 0)-2 0	-3 0)-4	0-1 ()-2 0	-3 ()-4	0-1 (0-2 ()-3 ()-4
1		1	1	1		1	1	1	1	1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1
2		0	0	0		1	1	1		0	0	0		1	1	1		0	0	0		0	0	0		1	1	1		0	0	0		1	1	1		1	1	1
3		1				1		ļ		1				1				1				1				1				1				1				1		
4		1				1				1				1				1				1				1				1				1				1		
5	1	1			0	0			0	0		ļ	0	0			1	1			0	0			0	0			0	0			0	0			0	0		
6		1	1			0	0			1	1			0	0			1	1			0	0	ļ		0	0			1	1			0	0			0	0	
7		1				1		ļ		0				1				0				1				1				1				1				1		
8			1				1				1	ļ			1				1	ļ			1	ļ			1				1				1				1	
9	1		1		0		0	ļ	1		1	ļ	1		1		1		1	ļ	1		1		1		1	,	1		1	,	0		0		1		1	
10		1				0		ļ		0				0				0		ļ		0				1		:		0		:		0				0		
11		0				1		ļ		0		ļ		0				0		ļ		0				0		,		0		,		0				0		
12		0	0			0	0	ļ		1	1	ļ		1	1			1	1	ļ		1	1			0	0	,		0	0	,		0	0			1	1	
13.1		1				0				3		ļ		0				0		ļ		1		ļ		1				1				0				0		
13.2		0	0			0	0	ŀ		0	0	ļ		0	0			0	0	ļ		0	0			0	0	:		0	0	:		0	0			2	2	
14	0				0			ŀ	0	_	_	ļ	1				1			ļ	0	_			0			:	1			:	0				1			
15		1	1			1	1	ļ		0	0	ļ		1	1			1	1	ļ		0	0	ļ		0	0			1	1			1	1			1	1	
16	_	0	0		_	1	1			0	0			2	2	_	_	0	0		_	0	0		_	0	0		_	0	0		_	2	2		_	1	1	
17	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18*	_	_	^	U	_	^	^	U	^	^	_	U	0	^	•	U	^	^	^	1	^	^	^	1	^	_	^	1	^	^	^	1	^	_	_	U	^	^	_	1
19	0	0	0	_	0	0	0		0	0	0		0	0_	0	_	0	0	0		0	0	0	\dashv	0	0	0		0	0	0		0	0	0		0	0	0	
Parcial	2	9	5	1	0	8	5	2	3	9	6	2	3 ′	10	9	პ -	3	/	6	2	1	6	4	2	1	/	4	3	2	/	5	2	0	8	6	2	2	10	9	3
Total		Rudao		17				15			2	20			2	5				18				13				15				16				16				24

⁰⁻¹ Budgetary information

⁰⁻² Financial position

⁰⁻³ Results of the operations

⁰⁻⁴ Economy, efficiency and effectiveness

^{*}only 18.1 Performance indicators

Annexe 2

	В	arce	lona	ì	St	ock	holm	1	I	onc	don		Bir	min	ghar	n	Ма	nch	este	r		Lee	eds		S	heff	field		C	Slas	gow		E	dinb	urgh	1
	0-1	0-2	0-3 ()-4	0-1 ()-2 (0-3 0)-4	0-1	0-2 (0-3 ()-4	0-1	0-2 (0-3 ()-4	0-1 ()-2 ()-3 0	-4	0-1	0-2 (0-3 ()-4	0-1 ()-2 ()-3 C)-4	0-1	0-2 ()-3 ()-4	0-1	0-2	0-3 ()-4
1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1
2		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		1	1	1
3		1				1		ļ		1				1				1				1				1				1				1		
4		1				1		ļ		1				1				1				1				1				1				1		
5	1	1			1	1		ļ	1	1			1	1			1	1			1	1			1	1			0	0			0	0		
6		1	1			1	1	ļ		1	1			1	1			1	1			0	0			1	1			1	1			1	1	
7		1				1		ļ		1				1				1				1				1				1				1		
8			1				1	ļ			1				1				1				1				1				1				1	
9	1		1		1		1	ļ	1		1		1	_	1		1		1		1	^	1		1	^	1		1	^	1		1	^	1	
10		1				1		ļ		1				0				1				0				0				0				0		
11		0	4			1	4	9		1	4			1	4			1	4			1	4			1	4			1	4			1	4	
12 13.1		1	ı			1	ı	ļ		1	ı			1	ļ			ا د	ı			1	ı			1	ı			ا د	ļ			1	ı	
13.1		4 0	Λ			1	1			4 2	2			2	2			ა ე	2			2	2			4	2			ა ი	2			2	2	
13.2	Λ	U	U		0	'	'		0	2	2		0	2	2		1	2	2		0	2	2		1	2	2		1	2	2		1	2	2	
15	U	1	1	:	U	1	1	ŀ	U	1	1		U	1	1		'	1	1		U	1	1		'	1	1		'	1	1		•	1	1	
16		2	2			2	2			1	1			1	1			2	2			2	2			1	1			1	1			2	2	
17	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18*	·	•	•	1		·		1	•	·	•	1	•	•	•	1	•	•	•	1	•	•	•	1	·	•	•	1	•	•	•	1	•	•	•	1
19	1	1	1		1	1	1		1	1	1		1	1	1		1	1	1		0	0	0	-	1	1	1		1	1	1	-	1	1	1	
Parcial	4	18	11	4	3	16	11	3	4	20	12	4	4	19	12	4	5	20	13	4	3	18		4	5	19	12	4	4	17	12	4	4	19	13	4
Total		•		37	•			33	•	•		40	•			39	•		,	42	•		·	36		•		40	•	·		37	•	•	•	40

⁰⁻¹ Budgetary information

⁰⁻² Financial position

⁰⁻³ Results of the operations

⁰⁻⁴ Economy, efficiency and effectiveness

^{*}only 18.1 Performance indicators

Documentos de Trabajo

Facultad de Ciencias Económicas y Empresariales. Universidad de Zaragoza.

- **2002-01:** "Evolution of Spanish Urban Structure During the Twentieth Century". Luis Lanaspa, Fernando Pueyo y Fernando Sanz. Department of Economic Analysis, University of Zaragoza.
- **2002-02:** "Una Nueva Perspectiva en la Medición del Capital Humano". Gregorio Giménez y Blanca Simón. Departamento de Estructura, Historia Económica y Economía Pública, Universidad de Zaragoza.
- **2002-03:** "A Practical Evaluation of Employee Productivity Using a Professional Data Base". Raquel Ortega. Department of Business, University of Zaragoza.
- **2002-04:** "La Información Financiera de las Entidades No Lucrativas: Una Perspectiva Internacional". Isabel Brusca y Caridad Martí. Departamento de Contabilidad y Finanzas, Universidad de Zaragoza.
- **2003-01:** "Las Opciones Reales y su Influencia en la Valoración de Empresas". Manuel Espitia y Gema Pastor. Departamento de Economía y Dirección de Empresas, Universidad de Zaragoza.
- **2003-02:** "The Valuation of Earnings Components by the Capital Markets. An International Comparison". Susana Callao, Beatriz Cuellar, José Ignacio Jarne and José Antonio Laínez. Department of Accounting and Finance, University of Zaragoza.
- **2003-03:** "Selection of the Informative Base in ARMA-GARCH Models". Laura Muñoz, Pilar Olave and Manuel Salvador. Department of Statistics Methods, University of Zaragoza.
- **2003-04:** "Structural Change and Productive Blocks in the Spanish Economy: An Imput-Output Analysis for 1980-1994". Julio Sánchez Chóliz and Rosa Duarte. Department of Economic Analysis, University of Zaragoza.
- **2003-05:** "Automatic Monitoring and Intervention in Linear Gaussian State-Space Models: A Bayesian Approach". Manuel Salvador and Pilar Gargallo. Department of Statistics Methods, University of Zaragoza.
- **2003-06:** "An Application of the Data Envelopment Analysis Methodology in the Performance Assessment of the Zaragoza University Departments". Emilio Martín. Department of Accounting and Finance, University of Zaragoza.
- **2003-07:** "Harmonisation at the European Union: a difficult but needed task". Ana Yetano Sánchez. Department of Accounting and Finance, University of Zaragoza.