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Governmental Accounting versus National Accounts: Implications of different accounting bases on EU member-States Central Government deficit/surplus

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ABSTRACT

The main purpose of this paper is to assess the implications on the European Union (EU) member-States Central Government deficit/surplus of different accounting basis adopted in Governmental Accounting (GA – microeconomic perspective) and National Accounting (NA – macroeconomic perspective). It analyses the cash to accrual basis adjustments to be made to General Government Sector (GGS) data, when converting from Governmental Accounts to National Accounts. Additionally, it assesses the impact of the accounting basis differences on the Central Government deficit/surplus, one of the macroeconomic indicators that EU member-States are obliged to report in order to accomplish with the Maastricht Treaty convergence criteria.

From the conceptual point of view, the paper highlights relevant differences between the two accounting systems (GA and NA), namely regarding accounting principles, such as recognition criteria – cash *versus* accrual bases. In spite of recent GA reforms trends in the EU member-States, moving from cash to accruals, differences still remain due to the existence, in some countries, of two different accounting bases in GA – accrual basis for financial accounting and modified cash basis for budgetary accounting. This is particularly relevant since the data from GA to NA are based on budgetary reporting.

The empirical study focuses on five EU countries – Germany, The Netherlands, Portugal, Spain and The United Kingdom. It develops a comparative analysis gathering countries representative enough of both Continental and Anglo-Saxon European governmental accounting perspectives. Following a qualitative methodology, the research is mostly supported by documental sources, namely Inventories of Sources and Methods disclosed by each of those countries and the respective Excessive Deficit Procedure (EDP) Notifications from April 2008 to October 2010, covering years 2005 to 2009 and Central Government data. It aims (1) to make a comparative analysis of the accounting bases adjustments and the respective accounting treatment and (2) to evaluate the impact of those adjustments on each country's deficit/surplus.

This paper contributes to a better understanding of the accounting basis differences for the convergence process between GA and NA, allowing for more reliable informative outputs to be reached for both micro and macro perspectives.

Keywords*: Governmental Accounting, National Accounts, Budgetary Accounting, Convergence Criteria, General Government Sector, Public Deficit/Surplus*

Introduction

Several authors have underlined the relevance of studying the relationship between Governmental Accounting (GA – microeconomic perspective) and National Accounts (NA – macroeconomic perspective) in order to assess whether GA systems are able to meet ESA95 requirements, namely in what relates to the data provided by the General Government Sector – GGS[1] (Lüder, 2000; Jones, 2000; Montesinos and Vela, 2000; Keuning and Tongeren, 2004).

This issue is much more relevant and actual since several countries all over the world and particularly the European Union (EU) member-States have started implementing important GA accounting reforms in the early nineties, following a common trend with a progressive approach to business accounting, introducing the accrual basis in their GA systems. Therefore, two different accounting bases exist in GA – accrual basis for financial accounting and modified cash basis for budgetary accounting.

EU member-States are obliged to prepare their NA in accordance with the ESA95 and to accomplish with the convergence criteria of the EU Treaty regarding budgetary discipline. ESA95 requires full accrual basis to all transactions, so several adjustments must be made when converting data from GA to NA, because the former are mostly cash-based, since they come from budgetary reporting.

Following previous studies to Portugal and Spain, this research identifies, from the conceptual point of view, the major differences between GA and NA, namely concerning the recognition criteria – cash *versus* accrual bases. It also highlights the different meaning of accrual basis in GA and NA systems.

The empirical study focuses on five EU countries – Germany, The Netherlands, Portugal, Spain and The United Kingdom. It develops a comparative analysis gathering countries representative enough of both the Continental and the Anglo-Saxon European governmental accounting perspectives.

It aims to analyse the main data adjustments to be made when passing from GA to NA as a consequence of the accounting bases differences and to also evaluate their implications on the Central Government (CG) deficit/surplus reported by five EU countries. It develops a comparative analysis gathering Excessive Deficit Procedure (EDP) Notifications from April 2008 to October 2010, covering years 2005 to 2009 and Central Government data.

The paper follows divided into six sections. Sections 1 and 2 discuss respectively GA and NA, and the relationship between these two accounting systems. Section 3 concerns methodological issues and sources used in the empirical study. Section 4 identifies the most important data adjustments from GA into NA in the five European countries and Section 5 analyses the subsequent relative impact on the Central Government deficit/surplus reported. At last, Section 6 presents some conclusions and expected future developments of this research.

1. Governmental Accounting and National Accounting

Concerning GA, the adoption of accrual basis must be highlighted as the most important common feature in GA reform processes under the NPM context, identified by authors as Vela Bargues (1996), Brusca and Condor (2002), Benito *et al*. (2007) and Groot and Budding (2008).

These authors also emphasize other relevant features of the GA reform process, such as:

- The adoption of General Accepted Accounting Principles (GAAP) with a progressive approach to business accounting;
- Though the budgetary accounting systems remain the most important, they emerge as a subsystem of the whole Public Sector Management Information System and tend to be gradually accrual-based;
- A trend for an harmonisation of accounting systems between different levels of government;
- A more relevant role given to accounting information for performance evaluation management and as a tool for transparency and accountability;
- Moving to approaching GA and NA, so that the adjustments, reclassifications and eliminations are easier and more reliable.

One important discussion that emerges from the recent GA reforms is the need to introduce the accrual basis in the budgetary accounting systems, since many international studies have shown that most countries that have adopted accrual-based GA, have not introduced it in the budgetary systems, namely in the budget preparation as well as in the budget execution reporting (Lüder and Jones, 2003; Sterck *et al.*, 2006; Benito *et al*., 2006; Martí, 2006; Yamamoto, 2006; Sterck, 2007).

Also Groot and Budding (2008) highlight that one of the most relevant characteristic of the NPM is replacing traditional cash-based by accrual-based accounting, for purposes of financial reporting in order to achieve better transparency and accountability. However they underline, as Paulsson (2006) does, that accrual accounting is more used for performance and control of governmental agencies and less adopted for budgetary decision and policy making.

In what relates to the innovations between financial and budgetary systems, Sterck *et al*. (2006) stated that only very few countries, like Australia, New Zeeland and The United Kingdom, have introduced full accrual basis in both systems. Most countries that have earlier adopted accrual basis in their financial systems, still keep cash and commitments bases in the budget preparation and reporting. These authors and also Yamamoto (2006) stressed that the main reason for this situation is the general thinking that the preparation of accrual-based budgets may be a risk for budgetary discipline.

The study of Carlin (2005) shows that, while full accrual basis was largely adopted by the budget funded agencies, most counties still apply modified cash basis, sometimes with additional accrual data, at the Local and Central Government entities. On other hand, Hoek (2005) underlines that despite a general trend among industrialized countries moving from cash to accrual accounting, it must be distinguished between budgeting and reporting systems. The former are connected to mixed cash/commitments accounting bases; at the same time the reporting systems are mostly linked to modified or full accrual accounting, with different practices and degrees of implementation in the several countries (Lüder and Jones, 2003; Torres, 2004; Hoek, 2005).

According to Martí (2006), the adoption of accrual basis in the budget is one of the most controversial issues in public sector accounting, with different impacts on the fiscal aggregates, such as deficit/surplus. For instance, she refers: "for some programmes that involve future cash flows, accrual budgeting moves costs recognition forward and so contributes to evaluate the sustainability of fiscal policy. The opposite occurs for capital assets for which accrual budgeting delays the recording of costs by spreading them over their useful life, and this could undermine the fiscal policy" (Martí, 2006:46). Also Anessi-Pessina and Steccolini's (2007) study, covering Italian Local Governments, demonstrate that the coexistence of cash/commitments budgeting and accrual accounting might be antagonistic, as budgetary deficit/surplus and accrual accounting income present different meanings.

Hoek (2005) highlights the use of diverse financial reporting practices by governments, mainly in Central Government level where there are two accounting systems with different purposes: (1) GA at micro level, dealing with budget and financial reports for the entities management and applying from cash or modified cash basis towards modified or full accrual basis; and (2) NA at macro level, presenting statistical, macroeconomic data on the whole economy for fiscal policy purposes, where full accrual basis is mostly adopted.

In what regards specifically to NA, its main purpose is to provide information about the key aggregate indicators (e.g. gross domestic product, volume growth, national income, disposal income, savings and consumption) of the economic activity of all organisations and households in a certain country, so that a whole national economy could be evaluated and compared with other countries' aggregates (Jones and Lüder, 1996; Jones, 2003; Benito *et al*., 2007; Bos, 2008).

Martí (2006) highlights that the Systems of National Accounts (SNA) as the Government Finance Statistics (GFS) Manual and the European System of National Accounts (ESA95), compile aggregated data in order to evaluate national income and net worth for the whole economy, divided into institutional sectors, being the General Government Sector (GGS) one of these. Consequently, NA records the transactions between national institutional sectors (non-financial corporations, financial corporations, General Government, households and non-profit institutions serving households) for the purposes of fiscal policy at a macro level (Cordes, 1996; Jones and Lüder, 1996; Lüder, 2000; Jones, 2003).

NA systems work over an economics and statistical-based conceptual framework and apply to economic activities taking place within an economy and also between it and the rest of the world (IPSAB, 2010). They forecast and describe macro aggregates for a Nation as a whole and the interaction between the different economic agents (Vanoli, 2005; IPSASB, 2010).

ESA95 – Council Regulation nº 2223/96 and subsequent amendments[2], as the conceptual framework which all European member-States are obliged to prepare their

National Accounts according to, faces great diversity of political and social systems. Nevertheless, it must facilitate not only objectives of analysis and evaluation of the economy of the member-States as a whole, but also allow monitoring and controlling their political and economic policies in order to sustain the European Monetary Union (Lüder, 2000; Keuning and Tongeren, 2004; Sierra Molina *et al.*, 2005; Hoek, 2005; Barton, 2007; Bastida and Benito, 2007; Benito and Bastida, 2009**).**

2. The relationships between Governmental Accounting and National Accounting

Regarding the relationships between the two accounting systems, the main problem concerns GGS data to NA, since they are obtained from GA, which diversity and divergences to the macro accounting systems may question the relevance, reliability and comparability of the aggregates that sustain the financial decisions of the EU member-States (Jones and Lüder, 1996; Lüder, 2000; Jones, 2000a).

Consequently the study of the relationship between GA and NA is very relevant for several reasons, such as (Cordes, 1996; Jones and Lüder, 1996; Lüder, 2000; Montesinos and Vela, 2000; Sierra Molina *et al.*, 2005; Martí, 2006; Benito *et al.*, 2007):

- The NA aggregates relating to governmental sector are based on GA, so the convergence of these two systems is needed to assure reliability and accuracy of the output data that sustain the EU fiscal decisions;
- The adoption of full accrual basis for the majority of transactions is compulsory for all EU members-States while preparing their NA;
- The GA reforms in progress in several countries, especially in the EU member-States, moving from cash-based to accrual-based accounting systems, has not embracing all GA systems, namely has excluded budgetary systems, the main source of data from GA for NA.

Montesinos and Vela (2000) explain that the main macroeconomic aggregates, as deficit and debt, must have exactly the same meaning in governmental financial statements or in the National Accounts, otherwise usefulness and reliability of both accounting systems information may be significantly reduced. These authors additionally support that "(...) accounting information has a very important role to play in this process, as a useful tool for guaranteeing transparency and comparability among European countries and for economic, financial and management decision-making" (Montesinos and Vela, 2000:129).

The literature review allows us to emphasise the differences related to recognition criteria. Under NA full accrual basis is preponderant, while GA considers, as stated before, a great diversity of accounting bases, mostly accrual for financial systems, but mainly cash-based for budgetary systems (Cordes, 1996; Jones and Lüder, 1996; Montesinos and Vela, 2000; Lüder and Jones, 2003; Torres, 2004; Martí, 2006; Barton, 2007, among others).

Table 1 compares for both systems the main differences from a conceptual point of view, regarding the main users and users' needs and also the goals and objectives that GA and NA must reach to satisfy their specific information needs.

Table 1: GA *versus* NA – main differences from the conceptual point of view

Issue	*Governmental Accounting*	*National Accounts*
USERS	Governments, international organisations, taxpayers, members of the legislature, creditors, suppliers, the media, employees, general public	European community institutions, governments, analysts and decision-makers of fiscal policies and other social and economic agents
USERS' NEEDS	Information about the financial position, performance and cash flows of an entity that is useful to the users in making and evaluating decisions about the allocation of resources	Aggregated data for economic analysis, decision-making and policy making
GOALS	Management Analysis, Financial and budgetary reporting	Economic analysis, Fiscal policies decision-making
OBJECTIVES	Accountability, Decision-making	Analysis and evaluation Providing information for preparing, implementing and monitoring the economic policies of the European Monetary Union
RECOGNITION	**Budgetary accounting – cash basis or modified cash basis** **Financial accounting – cash basis or accrual basis (modified accrual basis or full accrual basis)**	**Full accrual basis for all transactions (monetary and non monetary)**
MEASUREMENT	Historical cost – purchase price or production cost	Market prices (main reference)

Source: Adapted from Jesus and Jorge (2010)

Thus, each accounting system presents different criteria for transactions recognition. Nevertheless, ESA95 general recognition criterion was later modified regarding taxes and social contributions, by EU Parliament and Council Regulation (EC) nº 2516/2000, allowing member-States to recognise these according to three different methods, thus becoming an exception to the accrual basis regime:

- Accrual basis – recognition when the taxes generating factor occurs;
- Adjusted cash basis – recognition of taxes under cash basis sources, considering a time adjustment when possible, so that the amounts received can be attributed to periods when the economic activity generating the fiscal obligation occurs;
- Cash basis – when it is not possible to apply none of the other methods.

Regarding differences between GA and NA, IPSASB (*International Public Sector Accounting Standards Board*) developed a working program concerning the convergence of IPSASs with NA systems, issuing in January 2005 a Research Report with the purpose of identifying the differences between financial reporting provided by the statistical-based accounting systems (NA prepared according to IMF's GFSM2001, SNA93 as updated in 2008, and ESA95) and the financial information reported under IPSASs issued up to June 2004 – GA (IPSASB, 2005).

This document identifies the key issues that involve different accounting treatment in GA and NA and makes recommendations in order to reduce or eliminate the divergences between the two accounting systems wherever it is possible (Jesus and Jorge, 2010).

Also the recent IPSASB Conceptual Framework Exposure Draft 1, issued in December 2010, presents differences between GA and NA relating to scope, objectives and users, as those associated to the qualitative characteristics and reporting entity. However, this document does not argue in favour or against a convergence, but highlights that IPSASB' Conceptual framework must take into consideration other reporting systems, as the NA statistical bases of reporting (IPSASB, 2010).

Nevertheless, here our research focal point is the differences related to recognition criteria, namely concerning taxes, accounts receivable/payable and interest paid/accrued. This focus is justified because material differences GA-NA relating to these criteria seem to exist – as NA collects micro data from several institutional sectors, it is necessary to make some adjustments, e.g. in order to harmonise the moment when transactions are recorded (Lande, 2000;.Luder, 2000; Keuning and Tongeren, 2004).

Keuning and Tongeren (2004) explain that accounting basis differences imply making adjustments and corrections based on estimations of GA data to determine the macroeconomic ratios, like deficit and debt, which has consequences on their reliability and comparability. They highlight this situation requires the adoption of accrual basis under GA and also a standardisation of procedures and practices among the two accounting systems. Their study on the relationship between GA and NA applied to The Netherlands, describes the main steps that must be considered when taking data sources of governmental sector to NA:

- Transformation of cash-based (GA) to accrual-based data (NA) – identifying the proper asset and transaction category; consolidating some internal flows; adjusting time of recognition of taxes, interest payments on central government debt, payments in advance, among others;
- Transformation of accrual-based (GA) to accrual-based data (NA) – identifying the 'quasi-corporations' and also identifying the proper asset and transaction category and deconsolidate some internal flows.

Hoek's (2005) study, also focused on the Dutch experience, concludes that accrual-based budgeting and accounting systems are used both in The Netherlands Local and Central Government, although the budget information for NA purposes is still based on a mixed cash/commitments system.

On her hand, Martí (2006) underlines accrual budgeting as a fundamental problem to be solved in the relationships between GA and the NA aggregates that allow comparing countries' financial performance. She discusses the key items with different accounting recognition alternatives, such as:

- The recognition of taxes and social contributions revenues – tax credits, tax gap and moment of recording the tax revenues;
- The accounting treatment of infrastructures, heritage collections and military equipment.

Recently, Kober *et al*. (2010), whose research focus the Australian public sector reality, debate the usefulness of accounting information prepared and disclosed under three different accounting methods: cash-based, GAAP accrual-based, both in the GA context, and GFS accrual-based reporting under NA. They evidence the existence of two different perspectives about the usefulness of accounting information. Following Hoek, (2005) and Benito *et al*. (2007), the macro statistical data must be used only for NA purposes and not at micro level. On other hand, these authors emphasise the position of Jones (2000a, 2000b), as well as of Lande (2000), Lüder, (2000) and Montesinos and Vela (2000), arguing in favour of searching a link between GA and NA, due the inconsistence of the two systems, compromising the usefulness and reliability of the information for both micro and macro level.

This last perspective is also pointed out in a previous study regarding the impact of the GA to NA differences on the Portuguese Central Government deficit (Jesus and Jorge, 2010)[3]. The current research pursues that previous study exploring the accounting bases differences and consequent adjustments from GA to NA data, also extending the analysis of the quantitative impact to five EU member-States deficit/surplus, as explained.

3. Methodology and Data

This research essentially follows a qualitative methodology, since the purpose is to describe, analyse and compare accounting practices, focalising on a particular context and pursuing a systematic, integrated and broader approach (Miles and Huberman, 1994; Ryan *et al*., 2002).

The empirical study develops a comparative analysis gathering countries representative enough of both the European Continental and the Anglo-Saxon GA perspectives, as Brusca and Condor (2002), Torres and Pina (2003) and Benito *et al*. (2007) classifications, that consider countries' cultural differences, historical background and structural elements of public management, as Martí (2006) highlights.

It focuses on five EU countries – Germany, The Netherlands, Portugal, Spain and The United Kingdom. The following characteristics of the selected countries might be highlighted (Torres, 2004):

- Portugal, Spain and Germany represent the European (central and south) Continental countries, influenced by administrate law, with a hierarchical public administration. The two formers moved from cash to accrual accounting in the financial systems, remaining the budgetary systems cash-based; Germany has accrual basis for the agencies but the Central Government bodies still adopt cash-based accounting.
- The Netherlands is considered close to the Nordic countries group, which means public administration citizens-oriented, with a tradition of negotiation. Accrual accounting is used in the agencies for performance purposes, maintaining the cash

basis at central level.

- The United Kingdom represents the Anglo-Saxon countries that have introduced since long time ago a managerial approach in the public sector management, emphasising the value for the money in public administration. In terms of accounting bases, this group includes countries as Australia and New Zeeland, which apply full accruals for both financial and budgetary systems.

This study uses qualitative and quantitative data together, following a research design as suggested by Miles and Huberman (1994). It uses a multiple case method as the Sterck (2007) research has adopted and a comparative perspective as Pina and Torres (2003) and Martí (2006). It also follows the CIGAR trends in Comparative International Governmental Accounting researches, adopting an explorative multi-country case study (Lüder, 2009).

As qualitative data, this research is mostly supported by documental sources, namely Inventories of Sources and Methods disclosed by each country, usually designated as Inventories. From these Inventories we collected evidence of the data adjustments every country makes from GA to NA.

Quantitative data were collected from TABLE 2A of the Excessive Deficit Procedure (EDP) Notifications from April 2008 to October 2010, covering years 2005 to 2009. TABLE 2A provides data explaining the transition between the public sector accounts budget deficit/surplus in GA and the deficit/surplus in NA, regarding Central Government Sector (EUROSTAT, 2008a, 2008b, 2009e, 2009f, 2010a and 2010b).

As our object analysis is the Central Government Sector, it is important to clarify the delimitation of this subsector for each country in order to better understand the data sources from GA to NA and consequent accounting basis adjustments. Table 2 shows the entities included in CGS by country.

Table 2: Delimitation of Central Government Sector

Country	Entities included
Portugal	▪ Subsector State ▪ Central Government Autonomous Services and Funds
Spain	▪ Subsector State ▪ Other entities/Other Central Government Autonomous bodies
Netherlands	▪ Subsector State ▪ Universities ▪ Public Corporate Organizations ▪ Private Non-profit Organisations
Germany	▪ Subsector State ▪ Non-profit institutions controlled and mainly financed by CG
United Kingdom	▪ All administrative departments of the State and other central agencies whose competence extends over the whole territory

Source: Inventory of Sources and Methods (INE, 2007; EUROSTAT, 2009a, 2009b, 2009c and 2009d)

According to the EDP requirements, the EU member-States are obliged to prepare the Reporting of Government Deficit and Debt Levels twice a year: 1st Notification in April (N), covering planned data (year N), estimated data (year N-1), half finalised data (year N-2) and final data (years N-3 and N-4); 2nd Notification in October (N), only dissimilar regarding year N-1 data which is already half-finalised.

This study uses data analysis covering several observations for each country/year, including final, half-finalised and estimated data reported in both April and October Notifications, from 2008 to 2010, as Table 3 illustrates.

Table 3: Status of data used in every year/country and respective Notification

Year	***Status of data***	***Notification***
2005	Final	April 2008 to October 2009
2006	Half-finalised	April and October 2008
	Final	April 2009 to October 2010
2007	Estimated	April 2008
	Half-finalised	October 2009 to October 2009
	Final	April and October 2010
2008	Estimated	April 2009
	Half-finalised	October 2009 to October 2010
2009	Estimated	April 2010
	Half-finalised	October Notification 2010

Source: Reporting of Government Deficits and Debt Levels (EUROSTAT, 2008a, 2008b; 2009e, 2009f, 2010a and 2010b).

4. Cash-accrual data adjustments from GA into NA in Central Government Sector

The Inventories of Sources and Methods (hereafter called Inventories), disclosed by each country analysed, identify the delimitation of General Government Sector (GGS) and describe the composition of Central Government Sector (CGS) – S.1311, the focus of this study.

They additionally describe the main adjustments from GA data into NA. In a previous study concerning Portugal we have classified these adjustments into two major categories that imply standardized adjustments procedures: (1) cash-accrual adjustments for taxes, social contributions, primary expenditures and interest; and (2) reclassification of some transactions, namely capital injections in State-owned corporations, dividends paid to GGS entities, military equipment expenditures and EU Union grants (Jesus and Jorge, 2010).

This research explores category (1) – accounting basis adjustments, for which all countries have specific accounting procedures, as the Inventories explain. Some of them are much more detailed than others, but it is possible to summarise the information regarding the accounting treatment for cash-accrual adjustments in the following groups: (1) taxes and social contributions; (2) other accounts receivable and other accounts payables (primary expenditures); and (3) differences between interest paid and accrued.

Table 4 illustrates the adjustments types each country carries out, according to the respective Inventory.

Table 4: Cash-accruals adjustments in the analysed countries, according to the Inventories

Types of Adjustments	Portugal	Spain	Netherlands	Germany	United Kingdom
Taxes and Social contributions	X	_	X	X	X
Other accounts receivable/ Other accounts payables (primary expenditures)	X	_	X	X	_
Difference between interest paid and accrued	X	X	_	X	_

Source: Inventory of Sources and Methods (INE, 2007; EUROSTAT, 2009a, 2009b, 2009c and 2009d)

Tables 5 to 7 detail the adjustments procedures relating the three types of cash-accruals adjustments, considering each country's Inventory.

Table 5: Adjustments procedures relating to "Taxes and Social Contributions"

Country	Adjustments	
	Others Taxes and Social Contributions	Value Added Tax (VAT)
Portugal	▪ Cash-based revenue of year (N) + Revenue of year (N) received in January of year (N+1) – Revenue of year (N-1) received in January of year (N)] – taxes on tobacco, petrol and alcoholic beverages and social contributions ▪ No time adjustment cash-accrual data is applied to income taxes	▪ Cash-based revenue of year (N) + ¾ of cash revenue of January and February of year (N+1) – ¾ of cash revenue of January and February of year (N)
Spain	▪ The amounts accrued in each fiscal year recognised in GA based on the fiscal entitlements (liquidation time), deducting the annulments and cancellations occurred during the fiscal period ▪ Once determined the amount to be collected at the end of the fiscal year, the amounts of uncertain collection are estimated, based on an econometric model (system of accumulated averages)	

<table>
<tr><td>Netherlands</td><td colspan="2">▪ Cash-based receipts are used for most of taxes and duties (VAT, tobacco duties, motor oil taxes, alcoholic beverages, motor vehicle tax, etc.)
▪ Time-adjusted cash methods are applied to record taxes and duties, whenever possible (one month shift)
▪ No adjustments are made to Corporation tax, Income tax and Dividend tax
▪ Adjustments to Social contributions are not applied</td></tr>
<tr><td>Germany</td><td colspan="2">▪ One moth time adjustment to taxes on production and imports: VAT, duty on tobacco and beer, insurance tax, customs duties, duties on energy, sparkling wine and coffee (to this last item, two months until 2006 and one month since 2007)
▪ Two months time adjustments to taxes on production and imports: duty on spirits and on mineral water
▪ One moth time adjustments to current taxes on income and wealth: income taxes, capital gains and advance levy on income derived from securities (including solidarity surcharge to all of them)
▪ One moth time adjustments to insurance tax</td></tr>
<tr><td>United Kingdom</td><td>▪ For tobacco duties data are accrual-based
▪ For other duties cash figures are equal to the accruals figures or time adjustments are made
▪ Cash data are equal to accrued data for the flowing taxes and duties: corporation tax, capital gains, petroleum revenue tax, windfall tax, motor vehicle duty, and inheritance taxes
▪ Social contributions: to estimate national insurance contributions in accrual bases is used an econometric model, but CG actual data are cash-based</td><td>▪ The average of the last tree months cash revenues is added to the following quarter cash-based receipts
▪ Further adjustments are made regarding refunds to public bodies and the payments to the EU</td></tr>
</table>

Source: Inventory of Sources and Methods (INE, 2007; EUROSTAT, 2009a, 2009b, 2009c and 2009d)

Accordingly, regarding “Taxes and Social Contributions”, a very important topic of possible adjustments, the countries analysed present a great diversity of treatments. Cash or accrual data are used and there are different adjustments for the same taxes and duties items. Additionally, every country data demonstrates different cash bases in the same EDP Notification to diverse tax categories.

Table 6: Adjustments procedures relating to "Other accounts receivable/payable"

Country	Adjustments	
	Other accounts receivable	Other accounts payable[4]
Portugal	▪ Cash-based revenue of year (N) + Revenue of year (N) received in January of year (N+1) – Revenue of year (N-1) received in January of year (N)	▪ Modified cash-based expenditures of year (N) + Expenditures of year (N) in debt for year (N+1) – Expenditures paid in year (N) related to commitments of previous years
Spain	▪ There is no cash-accrual adjustment regarding primary expenditures, since they are already recognised under an accrual basis in GA ▪ For capital expenditures which contract establishes a single payment at the time of completion of the project, it is necessary to make an adjustment in order to consider, at year N, the payment related to the asset recognised	
Netherlands	▪ Cash-accrual adjustments are made by the ministries concerning the following transactions: sale/purchase of real estate and movables, purchase of military equipment, and natural gas revenues	
Germany	▪ Time adjustments are made to revenue and expenditures under the working balance; gross fixed capital data are collected from the figures on output statistics in the construction sector	
United Kingdom	▪ No adjustment is made, as data are provided on both cash and accrual basis	

Source: Inventory of Sources and Methods (INE, 2007; EUROSTAT, 2009a, 2009b, 2009c and 2009d)

Portugal, The Netherlands and Germany show cash-accruals adjustments to the accounts receivable/payable, because the working balances in TABLE 2A are cash-based, while Spain and The United Kingdom do not demonstrate these adjustments category, as the working balance in GA is already accrual-based.

Table 7: Adjustments procedures relating to "Difference between interests paid and accrued"

Country	Adjustments
Portugal	▪ Interest paid on year (N) + Interest occurred in year (N) to be paid in year (N+1) –Interest paid in year (N) occurred in year (N-1)
Spain	▪ Interest revenues and expenditures are recorded when the corresponding administrative acts are complete, considered as accrued[5] ▪ There is no adjustment unless there are pendent administrative acts, which much be detailed in the income statement ▪ Accrual basis is already adopted under the Public Accounting General Plan for all public sector entities
Netherlands	▪ Interest revenue and expenditure are accrual-based since 2002
Germany	▪ Time adjustments are made to the Ministry of Finance reporting data

Country	Adjustments
	applying a calculation model according to the accrual principle
United Kingdom	▪ Interest revenue and expenditure are reported on both cash or accrual basis; no adjustment is made

Source: Inventory of Sources and Methods (INE, 2007; EUROSTAT, 2009a, 2009b, 209c and 2009d)

Spain, The Netherlands and The United Kingdom do not display adjustments procedures to interests since the working balance is already accrual-based. On the contrary, in both Portugal and Germany time adjustments are disclosed since within GA interest is still recorded as cash-based.

5. Impact of the accounting basis differences

The quantitative impact of the accounting differences between GA and NA on the CG deficit/surplus reported by the five counties analysed, is evaluated from TABLE 2A and, as explained in section 3, data from six consecutive EDP Notifications have been used, in different status and covering years 2005 to 2009.

For every country EDP Reporting TABLE 2A is based on the Central Governmental Accounts (CGA) budgetary deficit/surplus, designated as “working balance”. This Table evidences data adjustments to reach final deficit/surplus – net borrowing/lending of Central Government Sector (S13.11), according to NA requirements.

Considering the delimitation of the CGS (see Table 2), about Portugal and Spain, the working balance in TABLE 2A concerns only to subsector State data and the deficit/surplus of other CG entities is disclosed as a whole in a separate issue (INE, 2007; EUROSTAT, 2009a). The Netherlands’ working balance reports the CG deficit/surplus for all the entities included in Central Government subsector, as The United Kingdom does (EUROSTAT, 2009b, 2009d). Germany also reports the working balance for subsector State and the deficit/surplus of the non-profit institutions is disclosed separately in TABLE 2A, with reference to extra budgetary units data (EUROSTAT, 2009c).

As to accounting bases, the working balance is supported in cash-based budgetary reporting (balance from expenditures and revenues) in Portugal, The Netherlands and Germany. However, these countries CG reporting is cash-based for the subsector Sate and accrual-based for most of the other CG entities. The working balance data is accrual-based in the Spanish and the British notifications (EUROSTAT, 2008a, 2008b; 2009e, 2009f and 2010a, 2010b).

TABLE 2A discloses four specific categories relating cash-accruals adjustments, similar to those identified under the Inventories (Table 4). Thus, the comparative analysis of the accounting basis differences is supported by the categories evidenced in Table 8.

Table 8: Cash-accruals adjustments in the analysed countries, according to EDP TABLE 2A

Categories	Portugal	Spain	Netherlands	Germany	United Kingdom
Taxes and Social contributions	X	_	X	_	_
Other accounts receivable	X	_	X	X	_
Other accounts payables (primary expenditures)	X	_	X	_	_
Difference between interest paid and accrued	X	X	X	X	X

Source: (EUROSTAT, 2008a, 2008b, 2009e, 2009f, 2010a and 2010b),

When analysing each country's TABLES 2A some discrepancies might be observed relating the adjustments described in the Inventories (see Table 4). The following must be highlighted:

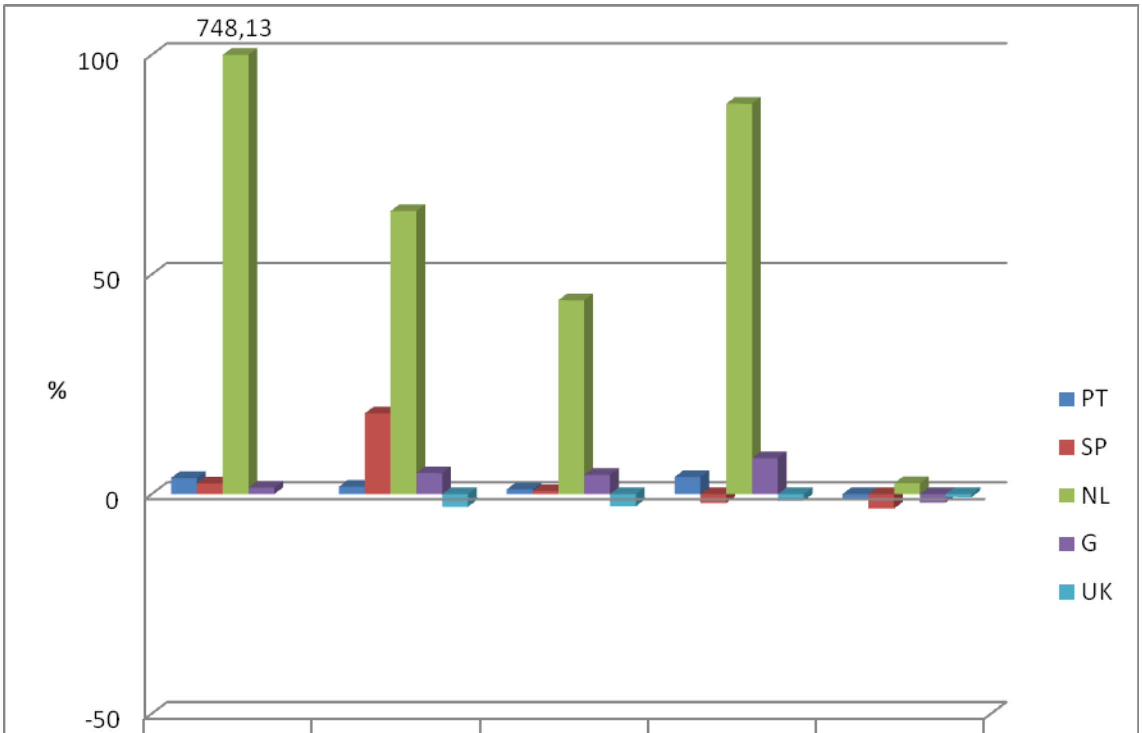
- The Dutch Inventory evidences that interests are accrual-based since 2002, hence not referring to any adjustment of this type. However, The Netherlands presents this kind of adjustments in all EDP Notifications analysed;
- Germany's Inventory refers to adjustments to taxes and other accounts payable, yet not disclosed in the EDP Notifications;
- In The United Kingdom case, although the respective Inventory declares no cash-accruals adjustments (Table 4), the October 2010 Notification reports adjustments to interest paid-accrued for all years of this Notification, i.e., 2006 to 2009. On the other hand, the Inventory describes adjustments associated to "taxes and social contributions", although in TABLE 2A no adjustment is reported to this category.

5.1 Analysis per year

Graphic 1 compares for the five countries and every year, the weight in percentage of the total accounting basis adjustments on NA deficit/surplus, considered after all the adjustments made from the working balance in CG accounts.

For this purpose we have decided to consider only data reported in the most recent Notification available (in principle the most accurate data): October 2009 Notification (year 2005 final data); October 2010 Notification (years 2006 and 2007 final data; years 2008 and 2009 half-finalised data).

Graphic 1: Total accounting basis adjustments *versus* deficit/surplus (%)



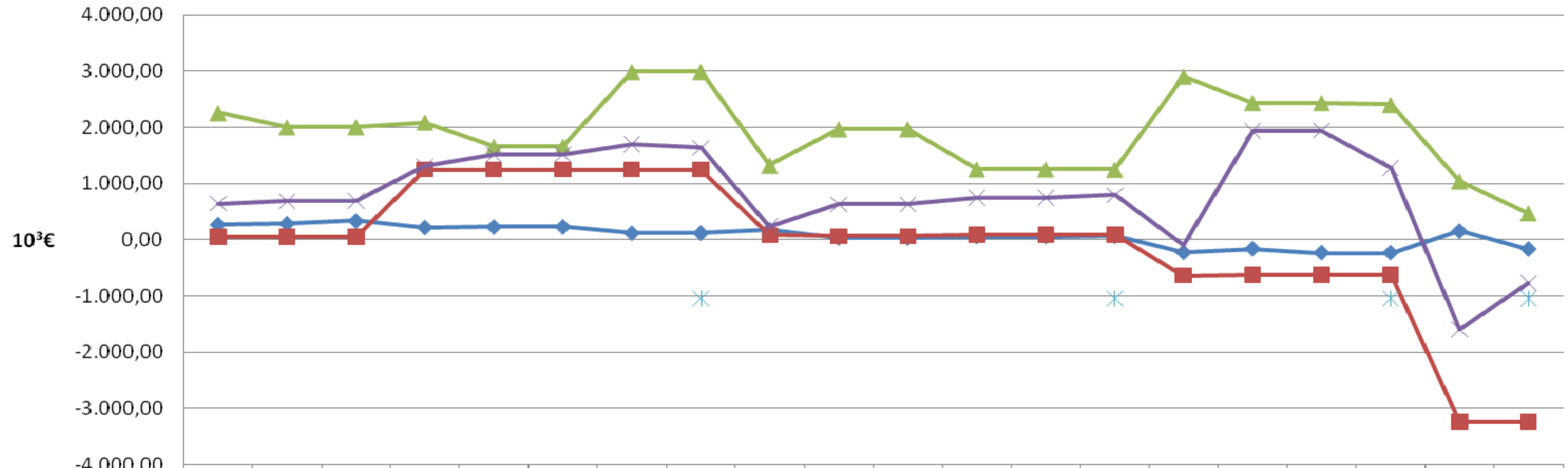
	2005	2006	2007	2008	2009
PT	3,67	1,68	1,08	3,89	-1,12
SP	2,41	18,36	0,7	-2,06	-3,29
NL	748,13	64,44	44,14	88,9	2,46
G	1,46	4,78	4,37	8,18	-1,96
UK		-2,89	-2,78	-1,52	-0,69

It must be noticed that the cash basis adjustments as a whole, in all years analysed have generally a positive impact on the working balance (GA), when passing to the deficit/surplus (NA), in all countries but The United Kingdom. In 2009 the impact is negative, except for The Netherlands.

Regarding Portugal, Spain and Germany, the perceptual weight is not very significant, except the Spanish 2006 and the German 2008 data. On the contrary, the Dutch data present very high figures, except in 2009. The United Kingdom presents cash-accruals adjustment since only 2006 with a decreasing relative weight on the respective deficit.

In a different perspective Graphic 2 shows the evolution of all cash-accrual adjustments over the years analysed, based on all notifications data available.

Graphic 2: Evolution of cash-accruals adjustments as a whole – 2005 to 2009



	Apr-08	Oct-08/Apr-09	Oct-09	Apr-08	Oct-08	Apr-09	Oct-09/Apr-10	Oct-10	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-09	Oct-09	Apr-10	Oct-10	Apr-10	Oct-10
	Final			Half-Finalised		Final			Estimated	Half-Finalised			Final		Estimated	Half-Finalised			Estimated	Half-Finalised
	2005			2006					2007						2008				2009	
PT	272,50	287,00	335,70	220,40	229,50	231,30	117,10	119,00	181,20	30,30	30,30	56,80	56,80	61,00	-230,50	-163,20	-233,60	-234,00	155,30	-168,00
SP	50,00	50,00	50,00	1.249,0	1.249,0	1.249,0	1.249,0	1.249,0	80,00	61,00	61,00	83,00	83,00	83,00	-637,00	-631,00	-631,00	-631,00	-3.237,	-3.237,
NL	2.257,0	2.005,0	2.005,0	2.090,0	1.659,0	1.659,0	2.990,0	2.990,0	1.323,0	1.970,0	1.970,0	1.254,0	1.254,0	1.250,0	2.908,0	2.438,0	2.438,0	2.403,0	1.039,0	473,00
G	643,00	684,00	693,00	1.305,0	1.511,3	1.511,0	1.700,0	1.635,0	229,00	629,43	629,00	751,00	751,00	795,00	-93,00	1.932,0	1.942,0	1.273,0	-1.596,	-772,00
UK								-1.045,						-1.044,				-1.044,		-1.045,

It can be observed that Portugal presents a certain consistency in all cash-accrual adjustments, always with positive impact except for 2009 data. These adjustments as a whole are not very significant.

The Spanish adjustments evidence changes from one year to another and consistency in each year data; they are not significant in 2005 and 2008 data and have a considerable impact in 2007 (positive impact) and in the last two years (negative impact). The regularity between different status data is a characteristic that must be underlined.

The Dutch adjustments as a whole, always with a positive impact, are very large and show great oscillations between different data status, However, The Netherlands data are regular within each status data analysed.

The German figures show the cash-accrual adjustments, with positive impact in all years, except 2009 data, are always changing, no matter what the data status be. As in the Dutch case, this country data present great oscillations between different data status and even among the same data form, indicating a great number of revisions, which seems to point out to less quality in reported data (Martins and Mora, 2007).

The United Kingdom represents a very peculiar situation. It discloses cash-accrual adjustments only in the last Notification, considering revisions of previous years' data – from 2006 to 2009.

5.2 Analysis results per category

Since cash-accrual adjustments are a sum of different adjustments types, positive and negative, a complementary analysis by category, as described in Table 8, seems important, because each category has dissimilar weights and present different evolutions.

We start by examining the weight in percentage of each cash-accrual adjustments type (see Table 9) on these adjustments as a whole, along the five years analysed and regarding all countries selected. The same format of data as in Graphic 1 was used – October 2009 and October 2010 Notifications.

Table 9: Accounting basis adjustments per category *versus* total adjustments (%)

Year 2005					
Categories/Countries	**PT**	**SP**	**NL**	**G**	**UK**
taxes and social contributions	19,55	-	11,47	-	-
other accounts receivable	59,61	-	22,54	41,78	-
other accounts payable	47,67	-	29,78	-	-
interest paid/accrued	-26,83	100,00	36,21	58,22	-
Total	100,00	100,00	100,00	100,00	-
Year 2006					
Categories/Countries	**PT**	**SP**	**NL**	**G**	**UK**
taxes and social contributions	183,30	-	10,60	-	-
other accounts receivable	-45,80	-	21,51	114,70	-
other accounts payable	-38,30	-	17,29	-	-
interest paid/accrued	0,80	100,00	50,60	-14,70	100,00
Total	100,00	100,00	100,00	100,00	100,00
Year 2007					
Categories/Countries	**PT**	**SP**	**NL**	**G**	**UK**
taxes and social contributions	-54,10	-	77,44	-	-
other accounts receivable	223,00	-	-12,70	112,50	-
other accounts payable	-75,40	-	-9,44	-	-
interest paid/accrued	6,50	100,00	44,70	-12,50	100,00
Total	100,00	100,00	100,00	100,00	100,00
Year 2008					
Categories/Countries	**PT**	**SP**	**NL**	**G**	**UK**
taxes and social contributions	143,80	-	-2,62	-	-
other accounts receivable	-62,20	-	102,21	22,19	-
other accounts payable	14,16	-	-5,37	-	-
interest paid/accrued	4,24	100,00	5,78	77,81	100,00
Total	100,00	100,00	100,00	100,00	100,00
Year 2009					
Categories/Countries	**PT**	**SP**	**NL**	**G**	**UK**
taxes and social contributions	-24,30	-	1.148,00	-	-
other accounts receivable	-125,00	-	-560,00	86,93	-
other accounts payable	386,30	-	-104,00	-	-
interest paid/accrued	-137,00	100,00	-384,00	13,07	100,00
Total	100,00	100,00	100,00	100,00	100,00

The following analysis considers each category relative weight, independently of being positive or negative, representing 100% in each category/ country by year.

“Taxes and social contributions” is the most relevant category in Portuguese and Dutch data in 2006 and 2009, respectively. The **“other accounts receivable”**, as the **“other accounts payable”**, display major percentages in Portugal and The Netherlands. This last category presents also very significant weights in the German data too. The **“interest paid/accrued”** is the only category reported by Spain and The United Kingdom; regarding the other countries, this category shows very large weights in the German data and above al in the Dutch figures.

Graphics 3 to 6 illustrate the evolution from 2005 to 2009 of each cash-accrual adjustments type displayed by the five analysed countries, showing the different data status, from all Notifications identified in Table3.

Graphic 3 presents the evolution of the **“taxes and social contributions”** category, which is an adjustment made by Portugal, The Netherlands and Germany.

In Portugal this category has a decreasing positive impact on the CG deficit since 2005 to 2007, a negative impact in 2008 rising again to positive values in 2009. Data demonstrate the amounts are not very relevant and also certain constancy to all Notifications status in each year, indicating that data revisions are not significant.

The Netherlands exhibits always a positive impact of this adjustments category on the respective surplus and shows regularity over all Notifications in every year. The evolution shows this category increases the impact on the budget balance in 2007, reduces in 2008 and increases again considerably in 2009.

The German situation is very peculiar, because this adjustments type are only disclosed since October 2009 Notifications, although covering data since 2006. The impact is positive in 2006 and 2007 (no data adjustments are disclosed to year 2005) with similar figures on each data status. Year 2008 data demonstrate this category has positive impact in all Notifications except in the last one (October 2010), which indicates a large revision in the same data status (half-finalised). In 2009 tax adjustments have a negative impact for both 2010 Notifications, showing expectable changes from estimate to half-finalised data. However, this category adjustments displayed are very significant, mainly what concerns 2006 data.

Graphic 4 illustrate the evolution of the category designated as **“other accounts receivable”**, also existing just in Portugal, The Netherlands and Germany.

Portuguese Notifications evidence this category representing a small impact on the deficit, both positive and negative, during all the years considered. These adjustments are almost regular along the period studied, whatever the status data is, with not very relevant amounts.

Regarding The Netherlands, this category exhibits great oscillations. Figures increase from 2005 to 2006, with similar numbers during all data status. They decrease greatly from 2006 final data up to estimated 2007 data, representing a negative impact along all notifications reporting this year data. From this point, these adjustments increase for a positive impact again up to 2008 half-finalised data, decreasing abruptly to 2009 estimated data (negative impact). The evolution evidences huge disparity between 2008 and 2009, passing from positive to negative impact, almost with the same huge amount.

The German data indicate great oscillations too, mainly between 2006 and 2007. It might be observed not so relevant amounts in 2005, but important ones in 2006 up to final data, being significant too the different figures presented in final data (October 2009 to April 2010 Notifications). Year 2007 displays a positive impact, evidencing large data alterations according to the different data status up to half-finalised data. Concerning 2008 and 2009, no important adjustments amounts are observed.

Graphic 5 displays the evolution of the category designated as **"other accounts payable"** that only Portugal and The Netherlands report.

Portuguese data show a positive impact of this adjustments type on the deficit since 2005 final figures up to 2006 final data (2010 Notifications), with some oscillations in between. The evolution shows a decreasing tendency till 2007 final data, increasing in 2008 (estimated and half-finalised data) and declining again in 2009 figures, being the most relevant ones.

The Netherlands statistics exhibit great oscillations for this category, even though with a positive impact on the deficit/surplus during all the period, but 2008 and 2009 data. It decreases from 2005 to 2006, become constant in 2006 half-finalised data and growing in 2006 final data. Year 2007 figures show huge fluctuations between different data status and there is a declining trend since 2008. The inconstancy of this adjustment type is reflected in their influence on the surplus.

Graphic 7 illustrates the evolution of the category nominated as **"interest paid / accrued"**, reported by all countries selected.

Portuguese figures are very regular and do not have a significant impact on the deficit; there is a negative impact in 2005 and a considerable positive impact in 2009 (merely estimated and half-finalised data).

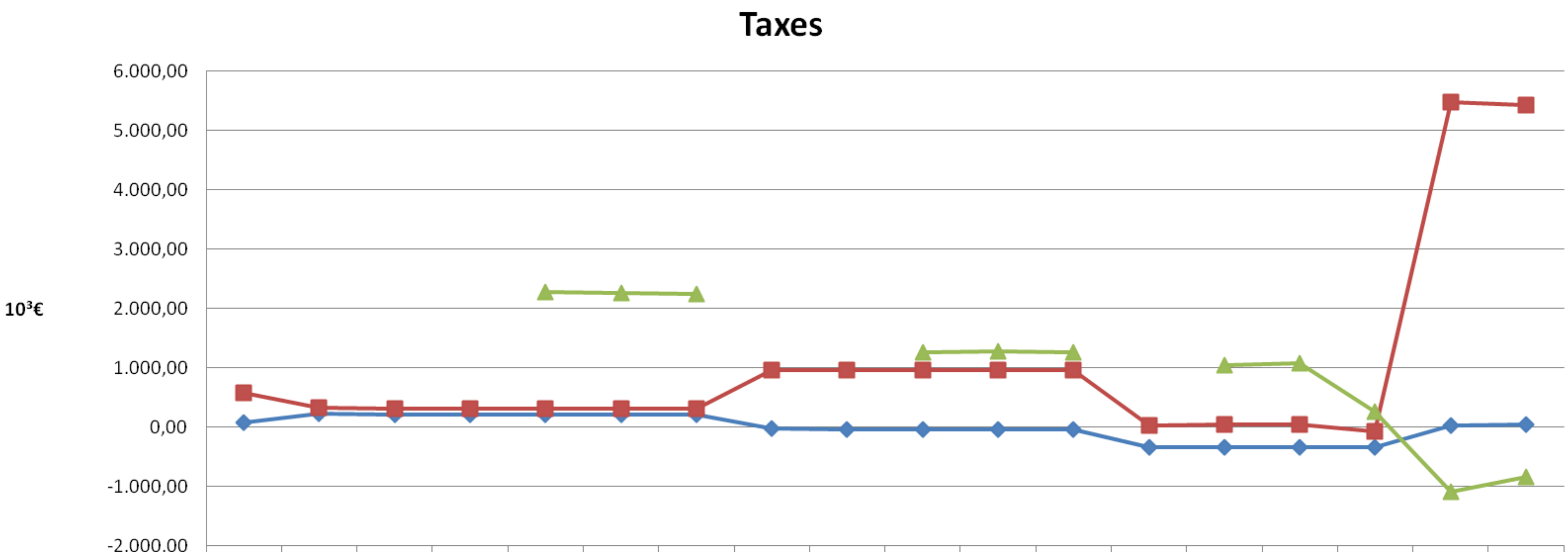
Spanish data report values with positive impact till 2007 final data and negative impact from then. The evolution exhibits growing figures from 2005 to 2006, decreasing in 2007 (very low positive values) and subsequently in 2008 and 2009, with large negative amounts for these last years. It might be underlined the figures constancy in each status data, a sign of quality data analysed. As mentioned, interests paid/accrued are the only cash-accruals adjustments stated in the Spanish Notifications.

The Netherlands reports these adjustments with large oscillations as to the others categories above analysed. The impact is positive up to 2008 final data and becomes negative only in 2009 figures, the larger ones. The evolution shows some inconstancy relating 2005 and 2006 data, even between the same status data, and a decreasing tendency starting in 2007 estimated data.

German data, with a positive impact in 2005 final data, evidence a regular trend in 2006 and 2007 numbers, with negative impact on the respective deficit. It decreases starting 2007 final data up to 2008 estimated data, increasing at this time and stabilizing until decreasing again in 2009 estimated data. However, data reveal few oscillations among the several status data up to 2008 data, when is might be observed large figures changes from estimated to half-finalised data and since this point to estimated 2009 figures.

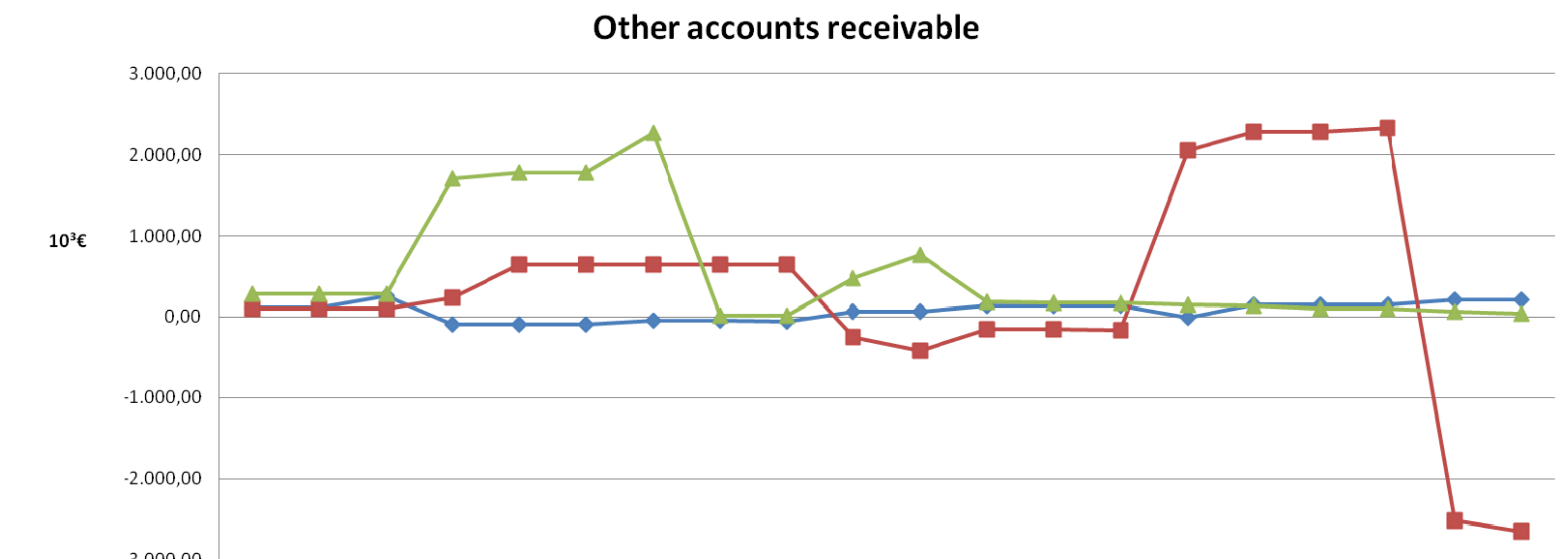
At last, in The United Kingdom reporting this adjustments category have almost the same amount over all years, with negative impact on the respective deficit. It must be underlined that this is the only cash-accrual adjustment made by this country and it was made only in the final Notification available (October 2010), covering previous periods since 2006 data.[6]

Graphic 3: Evolution of cash-accruals adjustments for "taxes and social contributions" – 2005 to 2009



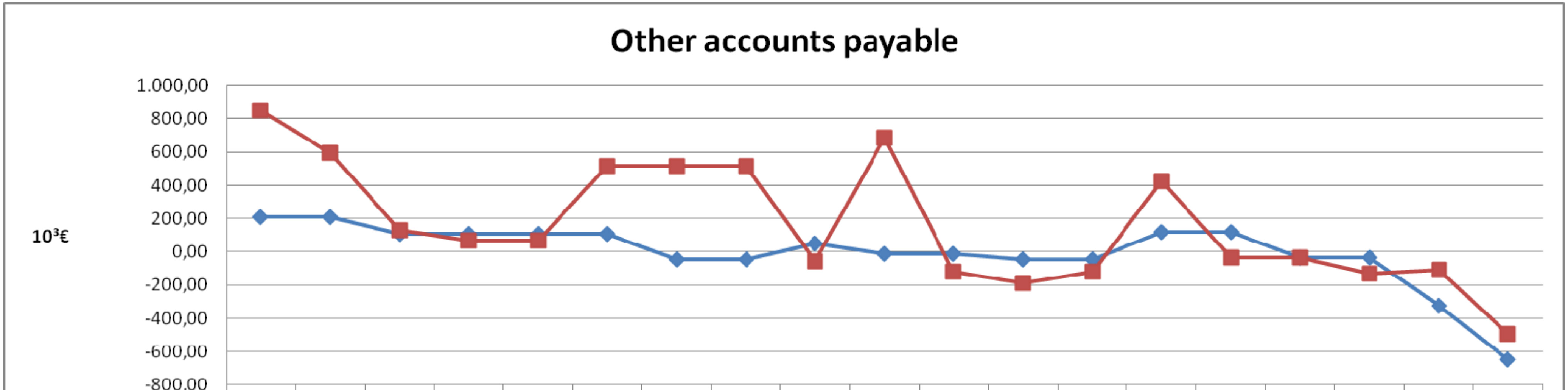
	Apr-08/Oct-09	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-08	Oct-08/Apr-09	Oct-09	Apr-10	Oct-10	Apr-09	Oct-09	Apr-10	Oct-10	Apr-10	Oct-10
	Final	Half-Finalided		Final				Estimated	Half-Finalised		Final		Estimated	Half-Finalised			Estimated	Half-Finalised
	2005	2006						2007					2008				2009	
Portugal	85,20	227,60	209,40	209,40	209,40	209,40	220,00	-22,40	-33,10	-33,10	-33,10	-33,00	-335,40	-335,30	-335,30	-335,00	37,60	41,00
The Netherlands	580,00	336,00	317,00	317,00	317,00	317,00	317,00	968,00	968,00	968,00	968,00	968,00	27,00	53,00	53,00	-63,00	5.473,0	5.431,0
Germany					2.273,0	2.254,0	2.249,0			1.267,0	1.276,0	1.261,0		1.048,0	1.077,0	258,00	-1.080,	-842,00

Graphic 4: Evolution of cash-accruals adjustments for "other accounts receivable" – 2005 to 2009



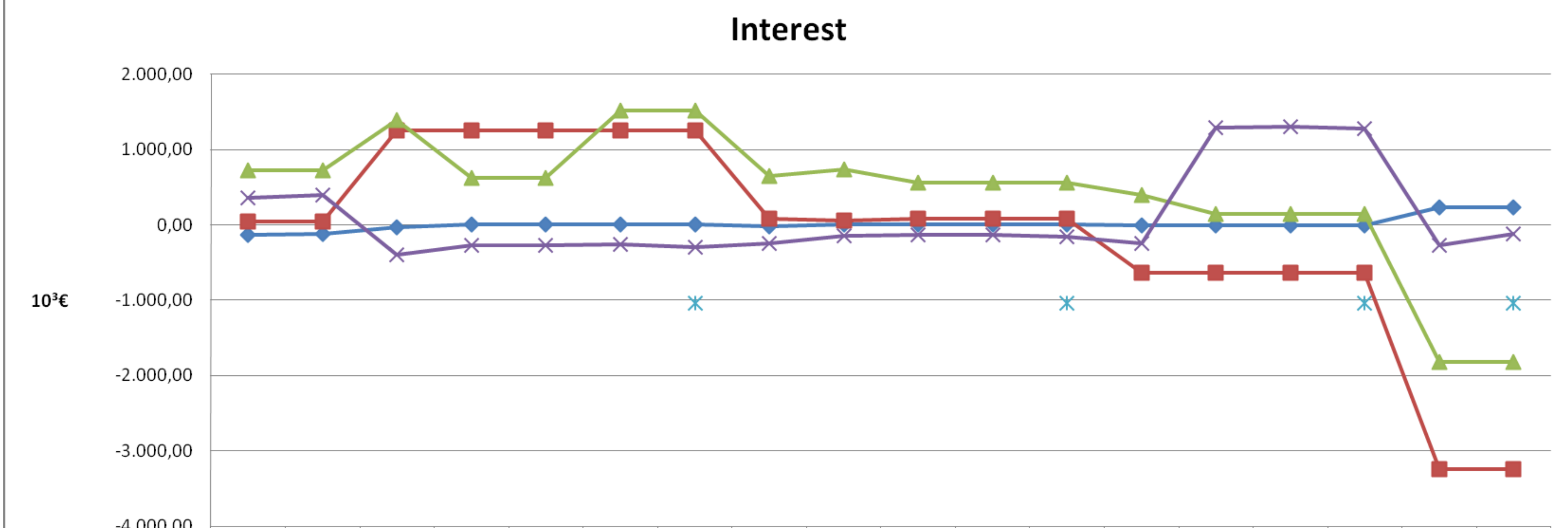
	2005			2006						2007					2008				2009	
	Final			Half-Finalised		Final				Estimated	Half-Finalised		Final		Estimated	Half-Finalised			Estimated	Half-Finalised
	Apr-08	Oct-08/Apr-09	Oct-09	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-08	Oct-08/Apr-09	Oct-09	Apr-10	Oct-10	Apr-09	Oct-09	Apr-10	Oct-10	Apr-10	Oct-10
Portugal	111,00	111,00	259,70	-86,80	-86,80	-86,80	-47,00	-47,00	-55,00	69,30	69,30	131,80	131,80	136,00	-4,80	144,70	144,70	145,00	210,50	210,00
The Netherlands	102,00	102,00	102,00	228,00	643,00	643,00	643,00	643,00	643,00	-244,0	-422,0	-155,0	-155,0	-159,0	2.060,	2.280,	2.280,	2.330,	-2.514	-2.651
Germany	283,00	284,00	287,00	1.705,	1.781,	1.781,	2.273,	18,00	18,00	479,00	769,00	186,00	177,00	177,00	147,00	135,00	106,00	106,00	68,00	44,00

Graphic 5: Evolution of cash-accruals adjustments for "other accounts payable" – 2005 to 2009



	2005		2006						2007					2008				2009	
	Final		Half-Finalised		Final				Estimated	Half-Finalised		Final		Estimated	Half-Finalised			Estimated	Half-Finalised
	Apr-08	Oct-08/Oct-09	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-08	Oct-08/Apr-09	Oct-09	Apr-10	Oct-10	Apr-09	Oct-09	Apr-10	Oct-10	Apr-10	Oct-10
Portugal	207,70	207,70	107,80	107,80	107,80	107,80	-46,20	-46,00	52,80	-10,30	-10,30	-46,30	-46,00	120,00	120,00	-32,80	-33,00	-323,00	-649,00
The Netherlands	849,00	597,00	130,00	70,00	70,00	517,00	517,00	517,00	-55,00	686,00	-118,00	-188,00	-118,00	425,00	-34,00	-34,00	-129,00	-106,00	-493,00

Graphic 6: Evolution of cash-accruals adjustments for "interest paid/accrued" – 2005 to 2009



	Apr-08	Oct-08/Oct-09	Apr-08	Oct-08	Apr-09	Oct-09/Apr-10	Oct-10	Apr-08	Oct-08/Apr-09	Oct-09	Apr-10	Oct-10	Apr-09	Oct-09	Apr-10	Oct-10	Apr-10	Oct-10
	Final		Half-Finalised		Final			Estimated	Half-Finalised		Final		Estimated	Half-Finalised			Estimated	Half-Finalised
	2005		2006					2007					2008				2009	
Portugal	-131,40	-116,90	-28,20	0,90	0,90	0,90	1,00	-25,10	4,40	4,40	4,40	4,00	-10,20	-10,20	-10,20	-10,00	230,20	230,00
Spain	50,00	50,00	1.249,00	1.249,00	1.249,00	1.249,00	1.249,00	80,00	61,00	83,00	83,00	83,00	-637,00	-631,00	-631,00	-631,00	-3.237,0	-3.237,0
The Netherlands	726,00	726,00	1.396,00	629,00	629,00	1.513,00	1.513,00	654,00	738,00	559,00	559,00	559,00	396,00	139,00	139,00	139,00	-1.814,0	-1.814,0
Germany	360,00	400,00	-400,00	-270,00	-270,00	-260,00	-290,00	-250,00	-140,00	-130,00	-130,00	-160,00	-240,00	1.290,00	1.300,00	1.280,00	-270,00	-120,00
UK							-1.045,0					-1.044,0				-1.044,0		-1.045,0

6. Conclusions

Through the literature review were identified the main differences between GA and NA, underling the recognition criteria differences, because NA concerning Central Government sector is obtained from GA budgetary accounting systems, generally cash-based. This generates the need of making adjustments when passing GA data into NA data, which generally requires accrual basis, although considering exception to taxes and social contributions.

Following a qualitative methodology, the empirical study has focalised five EU countries representative of the Continental European accounting perspective (Germany, Portugal and Spain), The Netherlands as a Continental country considered in the Nordic accounting approach and The United Kingdom, the Anglo-Saxon accounting typical view.

Firstly we identified and compared the main cash-accrual adjustments according to the categories described on the countries focused Inventories of Sources and Methods. This analysis demonstrated each country discloses different cash-accrual adjustments and different treatment procedures to convert GA data into NA. The adjustments centred on the "taxes and social contributions" exist in all countries, except Spain, whose GA working balance is accrual-based. Regarding the "other accounts receivable/payable" adjustments are displayed by countries which GA working balance is cash-based (Portugal, Germany and The Netherlands). The adjustments related to "interest paid/accrued" is discriminated through all countries Inventories, except The Netherlands and The United Kingdom.

In what respects to the quantitative impact of those adjustments, the study is focalised in Central Government data, covering years 2005 to 2009 and EDP Notifications from April 2008 up to October 2010. The analysis demonstrates the cash-accrual adjustments as a whole are more significant in the Dutch and Portuguese data, although also relevant in the German case. The most significant categories are "taxes and social contributions" and "the other accounts payable", manly in Portuguese and Dutch data.

The cash-accrual adjustments impact on each country's deficit/surplus is supported by the EDP Notifications – TABLE 2A, that display cash-accrual adjustments categories with some discrepancies regarding those disclosed in the Inventories. The impact is either positive or negative over the years analysed, with huge oscillations in The Netherlands and Germany reports. These oscillations, even within the same data status, point out to less quality data, whereas they seem more consistent for both the Portuguese and the Spanish situations. The United Kingdom only presents cash-accrual adjustments as regards to "interest paid/accrued" category, since its accounting systems, both financial and budgetary, are already accrued.

In synthesis, this study allows us to conclude that cash-accrual adjustments are less significant and have lower impact on the deficit/surplus in the countries that already adopt accrual accounting in GA systems, reporting an already accrual-based working balance. So, it is important that GA moves from cash to accrual, namely in what concerns budgetary accounting systems.

The main findings of this research conclude in favour of the need for more convergence between GA and NA, namely regarding the recognition criteria, in order to use a common accounting basis in GA and NA.

This research should be extended to other EU countries in order to continue evaluating the impact of the accounting basis differences and to propose a common framework to harmonize the accounting treatment to be adopted when translating GA data to NA. This framework is almost imperative in spite of the actual EDP Consolidated Inventory of Source and Methods each county discloses, because the Inventories explain particular and dissimilar accounting treatments and procedures in converting GA into NA data. The existence of such a great diversity of situations is an obstacle to get reliable, accurate and comparable NA data, used to sustain decisions regarding EU member-States fiscal policy. The need of standardized procedures to convert cash-based data into accrual-based data is worthy to be underlined as a crucial step to increase the reliability of informative outputs for both micro and macro perspectives.

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[1] This is Sector S.13 – Public Administrations, according to the definition of institutional sectors in the ESA95 (§ 2.17).

[2] Council Regulation nº 448/98; Commission Regulation nº 1500/2000; Parliament and Council Regulation nº 2516/2000; Commission Regulation nº 995/2001; Parliament and Council Regulation nº 2258/2002; Commission Regulation nº 113/2002.

[3] This study, focused in the Portuguese case and covering the years 2004 to 2007, is one of the rare attempts to quantify the accounting differences between GA and NA.

[4] These adjustments concerns to primary expenditures – current and capital.

[5] This concept is closed to the named "modified cash basis", according to budgetary revenues and expenditures are recognised when the associated administrative decisions have been taken, regardless of the time when the transactions associated with them occur (Montesinos and Vela, 2000).

[6] Because of this peculiar situation, the graphic presents points instead of lines.