

Governmental Accounting and Austerity Policies: Accounting representations of public debt and deficit in Europe and abroad

Accounting, Economics and Law Research Network Conference

SASE Annual Meeting, University of Milano, 27-29 June 2013

30 June 2013

Yuri Biondi

Cnrs – ESCP Europe

79, avenue de la République

75011 Paris

France

<http://yuri.biondi.free.fr/>

Abstract

This article provides a theoretical view on European Public Sector Accounting Standards (EPSAS), focusing on overarching accounting principles and models, as well as their consequences on the working and the very existence of public service activity. Our analysis applies to illustrative cases concerning: meaning of public deficit on accruals basis with a view to nature and use of public debt for redistributive purpose; the strange case of taxation on public sector employees' remunerations and benefits; accounting for employees benefits provisioning; and measurement of public debt and deficit following European Union supervision of Member States. This analysis develops a framework to assess the consistency of accounting models with non-lucrative missions of general interest that belong to public administration. It shows how budgetary accounting does (and should) complement accruals-based accounting in public sector accounting systems, asking to embed public sector accountability in a public service institutional order that is specific to public administration.

Keywords: EPSAS, fiscal compact, European Union, deficit spending, sovereign debt, governmental accounting, IPSAS

JEL Codes: H11, H60, H61, H62, H63, H70, H71, H74, H77, H83, M41, M48

Acknowledgments: I wish to thank Jean-Paul Milot, Eugenio Caperchione and Olivier Weinstein for their comments and suggestions. This paper is humbly dedicated to Professor Robert Newton Anthony who encouraged me to study governmental accounting and finances. Usual disclaimer applies.

Introduction

Since the emergence of political economy in the Eighteenth century, economists have been discussing about nature and causes of wealth of nations. Some believe that wealth originates from machines and other technologies of production (material capital); others from labor and its skills and competences (labor); someone else from hoarded savings held in cash and financial portfolios (financial capital). However, these elements are generally combined with others in economic organizations (entities) which constitute collective modes of production and consumption of that “wealth,” so to speak: households, enterprise and public sector entities.¹ Following national accounting conventions (Suzuki 2003a and 2003b), we attribute transfer and non-market provision to public administration, even though production, transfer and consumption acts are performed in every entity. This convention surely aims to point to the purpose and very modes of functioning that frames their respective activities: production or money-making, for commercial enterprises; redistribution of wealth, through transfer or non-market provision, for public administrations.

Especially during the Twentieth century, a major transformation occurred in this economic organization, leading banks and financial institutions to play a specific role, nowadays under coordination accomplished by central banks (the bank of banks) and governments.² All together, this financial system manages an endogenous monetary base that has become increasingly central and necessary to the working of production entities (enterprises) and consumption entities (public administrations). This evolution has made the distinction between real and monetary dimensions of these entities both complex and critical, because of increased interdependence between those dimensions. It seems straightforward to claim that money cannot be but a means, not an end, especially at the level of economic organizations which is under investigation here; however, the importance of monetary and financial dimension is now so high that practicing this simple principle may be hazardous.³

Whichever enterprise or public administration, every economic organization requires control through governance and regulation devices. Among others, this control is performed by accounting systems which are often regulated through standards issued by private and public bodies, based upon accounting principles and models of reference. These systems drive representations that make financial and economic activities accountable, framing and shaping the working of those organizations; these systems are then constitutive of their institutional economic order in economy and society (Burchell et al. 1980; Hopwood 1987 and 1989; Power 1996). Therefore, distinction and articulation of “real” and monetary dimensions pass through accounting conventions. The construction of accounting models for enterprises, public administrations and financial institutions make their economic and financial activity, with limitations, intelligible and manageable; that activity, in turn, is eventually responsible for social welfare. Their accounting model is then expected to make them accountable for their contribution to individual and collective needs, as well as sources and uses of (financial) funds employed to intent to that contribution.

¹ For sake of simplicity, we neglect households thereafter. Banking and financial institutions shall be introduced in the following.

² Financial markets and clearing houses constitute other collective modes of inter-bank coordination.

³ See Christophers (2013) on the evolution of national accounting for banking and financial institutions from a sociological viewpoint.

Nowadays, accounting representations and financing modes are submitted to major transformations, especially related to “financialisation”: a complex cultural and socio-economic phenomenon driving the financial sphere at the core of social and economic coordination (Erturk et al. 2012; Biondi 2013c). Concerning accounting and finances of public administration, this phenomenon has apparently facilitated imitation and transplanted of financial and accounting practices originated by the private sector (Hood 1995, Gendron et al. 2001, Neu 2006, Skaerbaek 2009), as well as the analogy between public debt and other securities incurred by private enterprises, asking for competition between them on a so-called “global financial market.”

In the aftermath of the global financial crisis since 2007, in response to sovereign debt crisis of some Member States of European Community, European Commission launched an initiative that can be included in that broader movement of financialisation of public administration. European Commission’s Report accompanying that initiative insists on convergence between public sector and private sector accounting standards:

The links between the private and public sectors in all EU countries create a strong need for connected financial reporting between these sectors, and accruals accounting systems such as IPSAS are very strongly connected to private sector accounting standards. Governments need to achieve the same high quality and transparency of financial reporting as the private sector. IPSASs are developed by the International Public Sector Accounting Standards Board, which is a standing committee of the International Federation of Accountants. (European Commission 2013b, p. 8)

This advocacy for convergence is reinforced by referring to international private sector accounting standards (IPSAS) which, in turn, constitute a mimicking transplanted of international financial reporting standards (IFRS) adopted by the European Union for private sector entities since 2001.⁴ In particular, European Commission Report (2013: 8) argues that “the IPSAS standards represent an indisputable reference for potential EU harmonized public sector accounts.” At the same time, this report clearly acknowledges that IPSAS standards cannot be adopted as they stand, following a quasi-unanimous position expressed by Member States.

[IPSAS] stem from the idea that modern public sector management, in line with the principles of economy, effectiveness and efficiency, depends on management information systems that provide timely, accurate and reliable information on the financial and economic position and performance of a government, as would be the case with any other type of economic entity (ibidem, p. 7-8).

Furthermore, this report insists on the competition between issuances of sovereign debt by Member States, together with alleged information needs by “owners” of those debts:

⁴ While IPSASB maintains an overall alignment strategy based on IFRS, to the extent that requirements of those IFRSs are “relevant” and “appropriate” to the public sector, IPSASB is also developing a conceptual framework project that “is not an IFRS convergence project” and does not purport “to interpret the application of the IASB framework to the public sector” (IPASB 2010b, p. 4). This conceptual framework under development does not mention the special role played by public borrowing and does not take any clear position about methods of measurement.

Governments have a public interest obligation to market participants — owners of government debt securities and potential investors — to provide timely, reliable and comparable information on their financial performance and position, in the same way that listed companies have obligations to equity market participants. Also, there is a need to ensure a minimum level of international comparability, especially as government securities compete against each other in a global financial market, which calls for a system based on general public-sector standards accepted worldwide. With reference to Article 114 TFEU, harmonised accruals accounting would provide greater transparency for the proper functioning of the internal market in financial services, without which there is a danger that owners of government securities would be entering into transactions without a proper understanding of the level of associated risk. This in turn could create a contagion risk, which can be a significant impediment to financial stability. (ibidem, p. 6)

Member States are then called to compete among them for financial resources that are pretended to be “available”, denying privileged relationship which exists between monetary basis and public debt, as well as interdependence links generated by having constituted one monetary and economic union:⁵

There is an increasing demand and need for public accountability and transparency on the financial position and performance of governments and ESMA considers that introducing a single set of public sector accounting standards would contribute to a better functioning of the internal market by ensuring a high level of transparency and comparability of government financial reporting which is a necessary condition for building an integrated capital market which operates effectively, smoothly and efficiently. Investors in government securities can currently not rely on a comparable level of transparency as provided by IFRS for listed companies. Introducing a single set of public accounting standards would reinforce the freedom of movement of capital in the internal market and help investors to compare the financial activities of governments and by consequence permit Member States to compete on an equal footing for financial resources available in the Union markets, as well as in the world capital markets. (European Commission, 2013b, p. 101)

This perspective has been raising an important debate. Criticism on IPSAS conceptual framework shows widespread opposition against financial information to lenders as main focus and objective for public sector accounting standards. This debate is partly reflected in Eurostat (2012) consultation concerning suitability of adopting IPSAS to harmonize public sector accounting standards throughout Europe. Criticism points to governance of IPSAS, as well as to their accounting model of reference. Accordingly, IPSAS adoption would trust public sector standards-setting to a private body run by private professional accounting firms and their representative association (IFAC), while the standards

⁵ This financial market orientation in relationships between Member States do not start with the Treaty of Rome, which provided for the free movement of capital, but the abolition of capital restrictions between Member States was to be "to the extent necessary to ensure the proper functioning of the common market" (Article 67) and "loans for the direct or indirect financing of a Member State or its regional or local authorities shall not be issued or placed in other Member States unless the States concerned have reached agreement thereon." (Article 68). This orientation began with Council Directive 88/361/EEC of 24 June 1988 providing for the removal of capital movements controls by mid-1990.

themselves are deemed to be inappropriate to specific needs and interests of governmental accounting and finances (Eurostat 2012).

In this context, this article aims to understand accounting representation of public deficit and debt from a theoretical perspective comparing alternative accounting models of reference. This constitutive accounting choice is expected to frame and shape the way public service activity is represented, financed and controlled. IPSAS adoption can imply accounting choices which go against the way public administration has been financed, controlled and represented until now, in Europe and elsewhere. The conceptual framework applied to perform this theoretical analysis consists of two logical steps. From one hand, following Biondi (2008 and 2012), fair value accounting proves to be inconsistent with accounting needs and interests that are specific to public service activity, since fair value accounting mingles non-realized revaluations with actual charges and revenues; by the way, Government Finance Statistics (GFS) which enable macroeconomic policy do segregate revaluations from matched transactions, and further distinguish between market and non-market activities (European Commission 2013b, chapter 4). From another hand, our conceptual framework further discriminates between distinctive ways to represent and govern current and cumulated public deficit determined on accruals basis of accounting (Appendix A). Together, these two logical steps enable to assess the capacity of an accruals basis of accounting to “truly and fairly” represent public service activity as a non-lucrative entity with specific general interest missions. This assessment focuses on overarching set of accounting concepts and rules which are analyzed from a theoretical perspective comparing different accrual accounting representations respectively based upon wealth (static accounting), cash or economic flow (dynamic accounting).

The remainder is organized as follows. First section develops our conceptual framework of reference, explaining need and interest of an accounting model capable to accounting for the specificity of public service activity. Second section illustrates this specificity regarding meaning and function of public debt and deficit, as well as employees’ remunerations and benefits. Second section further applies this model to Excessive Deficit Procedure imposed by European Union to adopting Member States, recently reshaped by European Directive 2011/85/EU of 8 November 2011 (EU 2012, protocol No. 12). This theoretical analysis improves on our understanding of constitutive accounting choices that are alternative and involve critical consequences and implications for public policy and the very existence of public service activity. A brief summary concludes.

Which accounting model for public service activity?

Some economic theories make the market the only mode for representing, coordinating and governing every economic activity. These theories aim at reshaping every non-market and non-lucrative activity in a market form, worried by absence of property rights and monetary incentives led by prices and profits. From this market approach, convergence between public and non lucrative sector toward private lucrative sector is straightforward, since their analogy is taken for granted, while all differences are ignored by assumption. However, institutional economic theories make possible to disentangle institutional and organizational features that are specific to public administration, non-business entities and even business entities themselves. Accordingly, every economic organization is distinct from the market as alternative modes of economic coordination. Drawing upon an institutional economic approach, Biondi (2008 and 2012) develops an economic

model capable to include accounting systems in representation and control of public administration as non-lucrative economic entities. Instead of submitting them to market representation and financial value reference – quite a peculiar approach which denies their institutional mission -, this approach points to the constitutive relationship between public management, organization and accounting systems, generating an economic coordination that is organized, continued and intently sustainable over time.

This approach distinguishes between kinds of economic entities, according to specific economic and monetary (financial) processes generated by them over space and time. In particular, enterprise entities process is sustained by commercial revenues (business income economy); public administration process is sustained by tax collection (redistributive public economy); non-business entities process is sustained by voluntary and compulsory contributions from their members (cost-sharing economy). These featuring economic processes ask for specific accounting representations; fundamentally, they cannot exist and perform absent a specific accounting model to frame and shape their working. In fact, the existence of different types of assets and liabilities, expenses and revenues that do not exist in business enterprises already suggests a need for special accounting systems for public service entities. As GASB (2006: 16) concludes in a white paper on the matter:

Governments are fundamentally different from business enterprises. As a result, separate accounting and financial reporting standards for governments are essential to meet the specific needs of the users of governmental financial reports. The standards for governments need to reflect the unique environment of government, including different organizational purposes and special legal powers, and to effectively address public accountability issues inherently related to the unique government environment.

Therefore, a specific public service activity requires a specific accounting model of reference. With limitations, economic performance of a business activity is represented through its accounting earnings, that is, the flux of income that has been generated through borrowed sources of financing (both liabilities and shareholders' equity); this flux can be allocated and distributed in various ways. However, governments are not expected to generate economic earnings from their activity. In fact, they are not expected to generate a constant (or maximal) flux of revenues from their taxpaying citizens. Who would be submitted to a government looking at fiscal inflows as its own revenue, a net result from its sovereign activity? This intent is actually forbidden by republican constitutional orders which establish and regulate taxation, public finances and related accounting and accountability systems.

Performance of non-lucrative activity, including public administration, consists of direct satisfaction of individual and collective needs (established by institutional purpose and scope), while no revenue or income is required to be generated throughout this process (Biondi 2008 and 2012). The nature of public service activity is "non-market": it is performed by redistribution through transfers and provision of goods and services in kind. In sum, absence of revenues (in commercial accounting terms) features public service activity (Table 1), implying: (i) no generation of positive values or

incomes; (ii) direct satisfaction of individual and collective needs through an overall non-market redistribution of revenues and fortunes; (iii) disconnection between this satisfaction, which is the ultimate purpose and scope, and generation of revenue and surplus.

Table 1. Comparative analysis discriminating functional definition of commercial revenues (sustaining business entity) from operating inflows such as taxation and contributions (sustaining non-business entity)

Revenues to Business Entity		Operating Inflows to Non-Business Entity	
(a)	Involve the transfer of a good or service in exchange for a transfer of cash or receivable;	(a)	Those operating inflows are a transfer that is not measured at the 'equivalent' consideration of a commercial transaction;
(b)	Imply a profit motive , i.e., the seeking of a satisfactory (reasonable) business income (the basis for recovering);	(b)	The non-business activity does not have – by definition - a profit (lucrative) motive;
(c)	Incorporate in pricing a judgment about the utility of the purchased item (based on the voluntary nature of the exchange under competitive conditions);	(c)	The transfer does not imply any evaluation, even crude, of the utility of the generating activity;
(d)	Are determined by prices which reflect the client's <i>willingness</i> to pay; no business firm refuses to be paid more for the same service, does it?	(d)	The transfer is not based on the willingness to pay of the beneficiaries, but on their <i>capacity</i> to;
(e)	Complete the financial relationship between the client and the business entity. Nothing further is charged to the client, who in turn does not have any control or influence over the utilization of the revenues realized by the transaction.	(e)	The transfer does not conclude the financial relationship between the beneficiaries and the entity, since they are still subject to the future implications of the relationship (for instance, the tax levy by the state).

Through taxation or contribution, citizens commit resources to governments (generally by monetary transfers) in view to perform activities with a specific economic nature. Citizens' commitments are destined to both covering costs and financing the ongoing process, which requires a specific accounting representation. First of all, a balance sheet approach is not consistent with public sector activity and accountability. A balance sheet approach dismisses matching between costs and revenues to base upon recognition of assets and liabilities measured at the arbitrary moment of financial statements preparation. However, cash and financial flows dominate public management, while sources of funding base upon current and future flux of taxation coupled with public borrowing. Actually, even a revenue and expense approach based on matching should be adapted to this specificity of public administration (Biondi 2008 and 2012). Matching does not imply that revenues should or can be linked to specific costs, making fiscal years independent from each other: current and future inflows and outflows remain distinct and interdependent over time and space. Moreover, matching process should be reversed: preparers should first determine expenditure and expense (present and future) in order to attach to them every contribution that is expected to recover and finance them. Fair value accounting (see table 2) is then inconsistent with determining actual expense and contribution (past, present and future) incurred to maintain and develop redistribution-based public service activity: only expenses actually engaged do justify and demand for taxation to be levied and contribution to be asked for (Biondi 2008 and 2012).

Table 2. Accounting Models of Reference under an accruals basis of accounting

	Fair Value	Historical Cost
Approach	Balance Sheet	Income Statement

Method	Stock Method	Flow Method
Purpose	Valuation	Control
Focus	Wealth, Ownership	Inflows and Outflows, Revenues and Expenses

According to this non-market accounting model, an accrual-based deficit or surplus (resulting from a balance between revenues and expenses attached to the same period, and its accumulation over time) has a different meaning from business income: be it positive or negative, this balance shows ongoing capacity of contributions (mainly taxation, in case of governments) to cover incurred expenses. After having discriminated between fair value and historical cost approaches, retaining only the latter for governmental accounting, our approach further articulates three different ways to understand, represent and govern public deficit-spending policies under accruals basis of accounting (Table 3). These ways are numerically simulated and further developed in appendix A.

Table 3. Scenarios concerning alternative ways to represent public deficit-spending policies

	Scenario A	Scenario B	Scenario C
Outstanding Public Debt	Cumulated balance (debt) is zero in average	Cumulated balance (debt) is stably negative in steady-state	Cumulated balance is stably negative and increasing in steady-state
Accruals-based balance (surplus or deficit)	Accruals-based balance between taxation and expense is expected to cover for all charges, including depreciation of investments. It is moving around zero, alternating surpluses and deficits	Accruals-based balance covers only operational and interest charges, while refinanced debt is employed to fund investments that are not recovered by taxation. Accruals-based balance is increasing as long as new investments occur.	Accruals-based balance covers only operational expense at most, while refinanced debt is employed to fund interest and investment flows that are not recovered by taxation. Accruals-based balance is then ever increasing over time

Generally speaking, accruals-based (cumulated) balance is materially negative and increasing over time for central governments all around the world. This fact fits scenarios C, showing that modern states employ public debt to cover for operational expense (see appendix A for a numerical illustration). In this way, public borrowing performs a specific economic function as macroeconomic redistributive policy: in a nutshell, governments employ debt to redistribute income and wealth across stakeholders over space and time. The following section shall treat this specificity in further details.

Illustrative cases of accounting and financial specificities inherent to public service activity

Evidence of a structurally negative balance between total asset and liability on accruals basis - resulting from cumulated annual unbalances between annual total expense against annual total contribution (Appendix A) – do prove specific accounting and financial needs and interests concerning public service activity. These needs and interests are grounded in the working of governmental public economy which fundamentally differs from business economy: the former

consummates resources acquired through taxation and borrowing, in view to redistribute them at the macroeconomic level. Accounting policies targeting one scenario or another (Table 3 and appendix A) may then involve fundamental political choices between alternative ways not only to represent but also to govern public action over economy and society. For sake of simplicity, we shall show this public service specificity through three examples concerning deficit spending and borrowing; taxes paid on employees' remunerations and benefits; as well as provisions for future employees' benefits. We shall further apply this model to debt and deficit measurements involved in excessive deficit procedure applied by the European Union to Member States' debt and deficit.

Shall we repay public debt, one day? Specificity of public borrowing

We have been going on labeling it "debt": this appears to be the very issue, since this conventional label, which has some meaning from individual holders' viewpoint, does not fit the specificity of governmental borrowing since one century at least. Notwithstanding its old-fashioned label, modern evolution of economic and monetary systems has led to link public borrowing, from one hand, to monetary base and its joint management by treasuries, central banking and other financial institutions; from another hand, to governmental macroeconomic policies with overall purpose and function of redistribution of revenues and fortunes.

It is beyond the scope of this paper to fully investigate the link between sovereign debt and the monetary base at the macroeconomic level. Nevertheless, it is generally acknowledged that open-market and refinancing policies operated by central banks monetize governmental debt, temporarily at least; moreover, whenever central banks create *ex nihilo* paper money (legal tender), they generally buy back governmental debt securities against this creation. These and other links explain why central bank interest rates granted to banks and financial institutions (and related refinancing lines of credit) are expected to drive governmental borrowing rates on governmental securities whose liquidity is assured by central banking. Accounting consolidation of central banks within governmental accounts clears all doubts concerning sterilization of governmental debt held by central bank itself, for both interest charges and capital repayments (Biondi 2013 analyses the consolidation of the Bank of England in consolidated accounts for UK general government).

This featuring fact distinguishes public from private debts; moreover, public borrowing is further employed in view to redistribute resources at the macroeconomic level. This redistribution function is captured by net balance between asset and liability (that is, cumulated deficit on accruals basis) which is structurally negative and increasing over time for virtually all major governments (see Appendix A for a numerical illustration). This fact proves that governmental borrowing is systematically employed to both 'wake-up' sleeping cash hoardings and expand the monetary base. From one hand, public borrowing generates additional spending from hoarded financial resources held by households and businesses; from another hand, placement of public debt in portfolios held by financial institutions is related to monetary base creation and administration. Public debt refinancing does point indeed to a public-private partnership between state and banking to manage the monetary base. This partnership has assumed various forms in historical time. Constitutive political choices are involved in granting some securities with privilege to be refinanced through central banking. For instance, shifting this privilege from governmental securities to private securities will shift control on purchasing power from the public to the private sphere, while reducing overall

refinancing size may deleverage economy with impact on both spheres. This political choice does not necessarily imply favoring public deficit-spending: for instance, Simons and other liberal economists argued for governmental control over the monetary base against private banking in the thirties (Biondi 2013b).

In sum, based upon lending by final stakeholders and monetary base administration, governmental borrowing enables a 'soft' redistribution of financial fortunes, which complements 'hard' redistribution accomplished through taxation on revenues and fortunes. Among others, this redistribution plays an important societal function in compensating inequality in allocation of income and wealth achieved in other spheres of economy and society. From the viewpoint of individual holders, public debt is to be remunerated by interest charges and repaid by capital installments at its nominal value; however, at the aggregate level, public borrowing enables transferring these borrowed funds *in view to redistribute them* across stakeholders. This mechanism is made possible by continued refinancing of that debt at every capital installments, which makes this debt, once again, an essentially monetary phenomenon. As Perroux (1949, p. 96-97, our translation) early argues:

A borrowing government or public administration would take, by paying rents on debt, advantage to do not reimburse it straightaway. Lenders would then provide a service in having transferred a money amount without asking for its reimbursement at all. Is this observation right? It shall not be limited to public debt. It is logical to conclude, from the national evaluation viewpoint, that interests paid by private enterprises to their bond-holders is not evidence of a typical financial service, but simply the price paid by the borrower to the lender for avoiding reimbursement.⁶

By Government Finance Statistics convention, we impute public expense to consumption, but its ultimate macroeconomic effect depends on use of these collected funds, which can be devoted to non-lucrative investment, transfer, or provision of goods and services in kind. Paraphrasing what Schumpeter (1946, part IV chapter 7: 1114) said about endogenous bank money borrowed and employed by enterprise entities, we can say that public borrowings do not, of course, 'create' legal-tender money and still less do they 'create' real goods and services. They do, however, something — it is perhaps easier to see this in the case of expansion of monetary base to finance its public expense— which, in its economic effects, may lead to the creation of 'real goods and services' that could not have been created without this practice (Biondi 2013b).

This public funding practice, together with overarching institutions for treasury management and central banking, did not changed radically in recent times, but ongoing reform projects do apparently neglect this specific economic organization, looking for sustainability of public borrowing in terms of net asset and net worth accounted for by governmental balance sheets. This balance sheet approach is the model for reference for IPSAS and is repeatedly advocated by the European Commission Report (2013b, p. 6):

⁶ This functional viewpoint raises a new issue underlying the financialisation process: if the latter does not reduce the aggregate creation of debt, all the pressure on public debt reduction shall result in shifting purchasing power creation and control from the public to the private sphere, reinforcing the centrality of banking and finance in coordinating and controlling economy and society (Biondi 2013b).

Finally, the important advantage of accruals over cash accounting is that both assets and liabilities are consistently recorded, making it possible to have a complete and consistent picture of the real financial position and of whether it is sustainable.

Theoretically speaking, this advocacy of a balance sheet approach points to either fair value accounting model or scenario A (Appendix A), neglecting indeed an alternative income statement approach that may be adopted as reference model for public sector entities (Table 2). As a matter of fact, public borrowing sustainability still relies, from one hand, on the capacity to collect future taxes; from another hand, on issuance and refinancing conditions granted by national, European and nowadays international financial systems enabling public borrowing, even though we should distinguish intervention by central banking and other financial institutions, from lending by households and business entities (so-called final investors). Public borrowing is eventually justified by specific function of 'soft redistribution' accomplished through public debt and its refinancing, while this special status has never prevented governments to be financed and refinanced for centuries by final investors active on securities Exchanges. This longstanding practice has been pointing to income statement approach and scenarios B and C (Appendix A) to denote governmental debt and deficit management in modern times.

Should governments pay taxes on their employees' remunerations and benefits?

Remunerations (and benefits) paid to employees of public administration generally constitute a material share of governmental budget. For circumstances that go beyond the scope of this paper, these charges are submitted to taxation as do other private sector employees' remunerations and benefits. This strange practice involves a paradox to make governments paying taxes to themselves, with major financial and economic consequences: from one hand, this tax payment may be included between costs to be paid to perform public service activities, even though it is not an actual cost to be recovered. From another hand, it may push treasuries to issue additional debt to finance this tax payment which does eventually come back straightaway; this payment is then included in public debt financing to be funded (and remunerated) in the meanwhile.

In line with a non-market accounting model, accounting rule n. 17 applied to European Communities accounts fortunately solves this paradox by including this tax payment among other revenues from administrative operations, a special class of sovereign revenues (Biondi and Soverchia, 2011). Absent a legislative reform, this accounting solution enables to account for net remunerations and benefits, without that tax charge. Financial statements can then correctly show net annual expense to be paid and financed. This solution may be extended throughout Member States accounts in the process of harmonization launched by the European Commission since 2010.

By the way, this accounting and budgetary sterilization can be extended beyond remunerations and benefits. The same analysis holds for VAT payments by government as final consumer, which are received by government as fiscal collector.

Should governments make provisions on future employees' benefits?

According to EPSAS initiative, accounting for future employees' benefits is one of the key issues. Both the report (European Commission 2013) and the annexed study (European Commission 2013b) pay specific attention to it. Interestingly, European Communities accounts include this provision as an expense in income statement as soon as these benefits accrue to their beneficiaries (instead of waiting that they become payable to them); however, this estimation on accruals basis of a possible uncertain future expense constitutes a material share of cumulated deficit by European Communities as an accounting entity, proving that this expense -which is accrued and accounted for- is not covered from a financial viewpoint through accrued contributions from Member States at the time of recognition. The question is the following: should it be?

Accounting for employees' benefits has been imposed to private sector entities, but the practice to do not constitute actual financial provisions for them persists in the private sector, in Europe and abroad. This provision is formally required under IFRS which require business entities to declare assets dedicated to covering it. However, entities can declare that these provisions are employed to finance their own activity, making provisioning another non-cash element such as depreciation and impairment. These elements are unfunded liabilities indeed. To be sure, this non-cash recognition seems theoretically sound for business entities, because their accounting system is expected to recognize net earnings with are accrued; these earnings intent to represent generated business income to be allocated over periods and progressively shared among stakeholders, in different ways (Biondi 2005).

However, as already explained, taxpaying citizens do not expect to share earnings generated by their governments: instead, they are called to cover for governmental expense and funding. Governmental accountability does not seem to be clearly improved from recognizing and provisioning future benefits that are still uncertain and remote: their present estimation depends on critical assumptions on some remote future, while related obligations are generally under control of governments themselves, which can amend them by future legislative or regulatory reforms. In this context, information provision for these obligations may only be done *coeteris paribus*, resulting to be more akin with statistics than accounting. Some argue for accounting for these obligations at fair value, which introduces unsound and instable estimations whose representational limits are well known:

- Fair value estimation relies upon forecasting models based on critical assumptions and compound discounting of future cash flows, over several decades;
- Fair value estimation cannot represent effectively financial stakes and related refinancing risks, since a positive or null discounted value does not assure that net series of cash receipts and disbursements are balanced period by period, nor long-term financial sustainability;
- Inclusion of expected returns from asset portfolio matched to employees' benefit liability can involve difficulties and abuses as occurred with application of FAS 87 to private sector entities in US (FAS 1985);
- Unwinding of discounting period after period may undermine the interpretation of net financial position and current deficit, since implied variations do not correspond to certain future charges to be paid and financed, while only the latter should be included in a non-market accounting model of reference.

These limits relate to compound discounting method applied to the series of gross future outflows (if only future obligations are included) or net future balances (if future obligations are compensated with expected returns from dedicated funds). However, it is possible, in principle, to overcome this financial evaluation logic to provide basic information about the inputs of this evaluation: nominal amounts of future payments that are planned, as well as eventual interest charges that are planned to be paid to finance those payments. This method may easily align information about future employees' benefits with prospective cash accounting basis and treasury planning.

Therefore, it seems reasonable to do not include in government balance sheet and income statement a financial estimation that is subjective, remote and uncertain.⁷ Prospective information at nominal value, having a quasi-statistical nature, may be disclosed in the notes, through a multi-annual extension of budgetary accounting. This simpler solution points to a suitable articulation between accruals and cash bases of accounting in a non-market accounting model. The following paragraph shall discuss this articulation in the case of excessive deficit procedure applied to Member States of European Union (EU 2012, protocol No. 12).

Accounting and control of public expense: the case of excessive deficit procedure applied to European Union Member States

Recent transformations of public sector accounting involve a double drift toward private sector accounting: from one hand, some governments have decided to add an accruals-based accounting system originally designed for private sector entities; from another hand, public sector accounting standards have increasingly adopted and mimicked private sector accounting standards, perhaps in an alleged want to be 'modern.'

An accruals basis of accounting facilitates determination of costs incurred for every mission or activity, but it does not and cannot reduce those costs, by itself. It merely represents the correspondence between expense and contribution devoted to pay and finance for every mission and activity, at the level of accounted entity. To be sure, this contribution must cover for overheads and finance immobilizations required to maintain and develop those activities over space and time, while public borrowing is called to cover that expense over time in a structural unbalance (Appendix A and C). Therefore, accruals based accounting cannot replace budgetary accounting that enables the control of sources and uses of public funds. In fact, even business enterprises go on preparing budgets for managing their financing and treasury management, even though their financial statements are prepared under accruals basis. Today, governments continue preparing budgets that are central to public decision-making and supervision of public deficit and borrowing. While advocating for implementation of accruals based accounting for Member States, European Commission Report does not ask for eliminating budgetary accounting:

accruals accounting is not meant to abolish or replace cash accounting, in particular where the latter is used for the purposes of budgeting and budget control. In fact, accruals accounting should be seen as complementary, rather than as an alternative, to pure 'cash accounting'. In providing the full picture of the economic and financial position and

⁷ See also Oulasvirta (2008) and our Appendix C.

performance of the entities, it puts cash accounting in its overall context. (European Commission, 2013 p. 4)

This joint presence of cash and accruals accounting factually claims for an accounting model that enables combining them in a consistent way. From a theoretical viewpoint, historical cost accounting model can be consistently based upon cash flows and funds, while a fair value accounting model makes such a transformation more intricate and hazardous. The case of European Union excessive deficit procedure is significant in this context. In its present setting, measurements of deficit and debt do not require accruals-based accounting. From one hand, deficit includes investment expenditures, which would be excluded in a net deficit established on accruals basis:

« Government deficit (surplus) » means the net borrowing (net lending) (B.9) of the sector of « general government » (S.13), as defined in ESA 95. (European Council 1993, §3).⁸

From another hand, debt is measured at its nominal value,⁹ which a cash basis of accounting, possibly extended to several years and properly consolidated, may treat without major problems:

« Government debt » means the total gross debt at nominal value [face value] outstanding at the end of the year of the sector of « general government » (S.13) [...]. (European Council 1993, §5).

In fact, both measurements are determined according to statistical methods of aggregation and estimation and divided by the G.D.P. at current prices of the country, bringing them far away from an organizational and managerial purpose toward macroeconomic policy-making. The recent TSCG treaty – accepted by all Member States but United Kingdom and Czech Republic – has added a third criterion labeled “structural deficit” (divided by the G.D.P at current prices), which is expected to remain less than 0.5% (or 1% if the relative debt criterion is fulfilled). This third criterion focalizes on a subset of the deficit measurement called “annual structural balance of the general government”, which means “the annual cyclically-adjusted balance net of one-off and temporary measures” (TSCG, title 3, article 3, §3, point a), once again determined through statistical methods of aggregation and estimation. According to the treaty, this third criterion enables compliance with a golden rule which states that « the budgetary position of the general government of a Contracting Party [that is, a Member State having ratified the treaty] shall be balanced or in surplus ». This criterion can be waived in exceptional circumstances which refer « to the case of an unusual event outside the control of the Contracting Party concerned which has a major impact on the financial position of the general government or to periods of severe economic downturn as set out in the revised Stability

⁸ According to Pitzer et Dupuis (2006, p. 20), in Government Finance Statistics, « there is a close relationship between the level of net lending/net borrowing and the change in debt, with debt constituting a major share of the liabilities recorded on the balance sheet. »

⁹ According to ESA 95 (Eurostat 2002, p. 198), « in the Council Regulation 3605/93, the nominal value is considered equivalent to the face value of liabilities. It is therefore equal to the amount (contractually agreed) that the government will have to refund to creditors at maturity. In principle, interest accrued on a liability is not accounted for in the valuation of this liability ». According to IMF (2011, p. 23), « 2.121 The face value of a debt instrument is the undiscounted amount of principal to be repaid at maturity ».

and Growth Pact, provided that the temporary deviation of the Contracting Party concerned does not endanger fiscal sustainability in the medium-term. » (TSCG, title 3, article 3, §1, point b).¹⁰

In this context, according to the European Commission report, “the current approach of reconciling non-harmonised micro-level public-sector accounting data for EDP purposes is reaching its limits.” (European Commission 2013, p. 5). Nevertheless, an accounting harmonization process should be analyzed in its own institutional frame and context, raising two quite complementary issues. From an operational viewpoint, it seems reasonable to expect that an accounting harmonization may improve on consistency and effectiveness of information upstream and related controls; however, this does not require implementing double bookkeeping, accruals basis of accounting, or an overall abandonment of public order that has been instituted to make public administration accountable through Audit Offices and Courts throughout all the Member States. From a general viewpoint, European decision-makers should further acknowledge the public service mission that is performed through public deficit and debt, looking at the ways allowing this mission to be reconsidered in the financial architecture of the European Union. This architecture -which is expected to frame public borrowing and refinancing- includes modes of issuance and trading, working of central banking, as well as mutualisation, compensation and cross-subsiding between Member States and their citizens. As for common money by an integrated Union implies interdependency and solidarity that can and should be expressed in financial matters as they are expected to be promoted in other economic and social domains.¹¹

Concerning IPSAS adoption or adaptation, or a so-called “unavoidable reference” to them, these standards imply financial evaluation logic, notably applied to ‘financial instruments’ (which mingle financial assets and liabilities). Measurement at fair value is required at initial recognition for all financial instruments and constitutes a granted option for most of them. A large part of public debt securities may then be evaluated at current market prices and/or on the basis of current interest rates. Unrealized wandering fluctuations shall then be included in governmental balance sheet and income statement, with a material and significant impact on measurements of public deficit and debt on accruals basis.¹² Does European Commission initiative to harmonize European Member States accounting standards involve the introduction of fair value accounting for their public debt and deficit? Neither the report nor the annexed documentation do provide a clear position on this critical matter; they actually remain quite vague and confuse on evaluation methods, claiming for an alleged analogy between European Government Finance Statistics (ENA) and IPSAS on the matter. As a matter of fact, provision of statistical information about an economic and financial phenomenon is not the same as establishing a standard that rules it (Littleton 1956, 2012). Paraphrasing Marc Bloch (1954), these actions are as much different as measuring an earthquake and provoking it... At the present, European supervision criteria applied to public debt and deficit of Member States do stand in-between these approaches: they are based upon statistical information, but apply it for regulating

¹⁰ Are these criteria sound and reasonable? This answer goes beyond the scope of this paper, but we can note that no major monetary region (yen, dollar, and sterling) does comply with them, at the present, and no sovereign debt crisis has been occurring so far in financial markets of reference for them.

¹¹ Consolidated treaties instituting European Union declare that: “The Union shall promote economic, social and territorial cohesion, and solidarity among Member States.” (EU 2012, art. 3, §3, 3)

¹² IPSAS 29 further introduces a puzzling opportunity cost (profit) on concessionary loans granted at less-than market interest rates (see European Commission 2013b, p. 30), an accounting amount which is not, in itself, an actual profit or loss.

general governments submitted to those criteria, which are currently based upon an evaluation of financial liabilities at their nominal value.

According to the study conducted by Ernst&Young on accounting practices by Member States, only United-Kingdom, Latvia and Lithuania declare to apply fair value accounting for financial liabilities, while Czech Republic, Spain, Poland and Estonia declare a mixed model (European Commission, 2012)¹³; no Member States having adopted European common money do apply fair value accounting for financial liabilities (appendix B provides a summary of that study on this matter). In this context, according to Eurostat Expert Task Force quoted by European Commission (2013b, p. 115), adoption of IPSAS 28-29-30 concerned with financial instruments would be problematic for most Member States:

These standards are seen as not sufficiently adapted to public sector characteristics. In particular, the classification of financial assets required by this standard is seen as not suitable for some countries. The standard is seen as problematic for some countries which currently use a nominal value basis, whereas the standard calls for measurement after initial recognition at amortised cost using the effective interest method for loans and receivables and held-to-maturity investments. Accounting for financial instruments on a fair value basis on initial recognition is also considered complex because entities need to apply judgment in determining the market value of similar instruments with the same term, currency and risk profile, on the transaction date. [...] Accounting treatment is seen as relying too much on management intention.¹⁴

Furthermore, following Biondi (2013), the UK case – which is the most compliant with IPSAS according to European Commission Report (since its accounting model applies an official interpretation of IFRS provided yearly by HM Treasury) - provides a significant counterexample to alleged advantage to adopt this accounting standards set:¹⁵ Major uncertainties and unrealized fluctuations have been introduced in public accounts, whose representational meaning is then undermined. At the same time, deconsolidation opportunities (Biondi et al. 2010) – notably applied through public private partnerships - have excluded from accounting perimeter considerable obligations that have been incurred by UK government for future interests charges and capital installments, which would be accounted for on a cash basis of accounting. Finally, we can cast reasonable doubts on need and interest of European Union to engage a fair value revolution in governmental accounting principles and models of reference, as well as in the transnational procedures of European supervision on Member States' deficit and debt.

¹³ France was classified as having a mixed model, but accounting for financial liabilities at cost and nominal value is dominant and preferred (Biondi 2008). We do not know at which extent these accounting models are mixed and applied.

¹⁴ « Accounting for financial derivatives is also seen problematic because IPSASs 28 to 30 call for recognition at fair value. Hedge accounting as proposed by the standard is seen as problematic not only in terms of the complexity of accounting treatment, but also in terms of its impact on the statement of financial position and the statement of financial performance. In addition, macro hedging is not recognised by the standard. Transitional issues are highlighted for cash-based systems. » (ibidem).

¹⁵ In a similar vein, Oulasvirta (2013) analyses the case of Finland.

In guise of conclusion

This article has provided a theoretical view on European Public Sector Accounting Standards (EPSAS), developing a theoretical analysis of overarching principles and models of reference, in connection with their consequences on the working and very existence of public service activity.

This analysis has cast doubts on wishful thinking concerning a balance sheet approach to public sector accounting. This doubt-casting was illustrated regarding meaning of public deficit on accruals basis and nature of public borrowing that is employed in view of its redistribution; the strange case of public administration paying tax to itself on employees' remunerations and benefits; accounting for provisions on future employees benefits; and measurements of public deficit and debt in excessive deficit procedure applied to European Union Member States.

All together, these illustrations show how articulation between budgetary accounting and accruals based accounting remains central to public service accountability, which should remain framed in a public service institutional order it belongs to.

References

- Biondi, Yuri (2005), "The Firm as an Entity: Management, Organization, Accounting". Università degli Studi di Brescia Working Paper No. 46. URL: <http://ssrn.com/abstract=774764>
- Biondi, Yuri (2008), « De Charybde de la comptabilité de caisse en Scylla de la comptabilité patrimoniale », *Revue de la régulation*, 3/4 | 2e semestre, Autumn 2008. URL : <http://regulation.revues.org/5003>
- Biondi, Yuri (2012) « Should Business and Non-Business Accounting Be Different? A Comparative Perspective Applied to the New French Governmental Accounting Standards », *International Journal of Public Administration (IJPA)*, Volume 35, Issue 9, July, pages 603-619. URL: <http://ssrn.com/abstract=1414751>
- Biondi, Yuri (2013), Les transformations récentes des comptes de l'Etat en Grande Bretagne, ou la nouvelle 'Ile du Trésor', *Gestion & Finances Publiques*, n° 2/3 - Février/Mars 2013, p. 57-64. Version anglaise, URL : <http://ssrn.com/abstract=2197656>
- Biondi, Yuri (2013b), « Hyman Minsky's financial instability hypothesis and the accounting structure of economy », *Accounting, Economics and Law : A Convivium*, 3 (3). DOI: <http://dx.doi.org/10.1515/ael-2013-0045>
- Biondi, Yuri (2013c), The Governance and Disclosure of the Firm as an Enterprise Entity. *Seattle University Law Review*, Vol. 36, No. 2, pp. 391-416. URL: <http://ssrn.com/abstract=2231340>
- Biondi, Yuri and Michela Soverchia (2011), « Accounting Rules for the European Communities: A Theoretical Analysis », 6th EIASM international conference on Accounting, Auditing and Management in Public Sector Reforms, September 2010; 13th Biennial CIGAR Conference, Ghent, June 9-10, 2011. URL: <http://ssrn.com/abstract=1627666>
- Biondi, Yuri, and Bloomfield, Robert J., Glover, Jonathan C., Jamal, Karim, Ohlson, James A., Penman, Stephen H., Tsujiyama, Eiko and Wilks, T. Jeffrey Jeffrey (2011) "A Perspective on the Joint IASB/FASB Exposure Draft on Accounting for Leases". *Accounting Horizons* 2011, 25 (4): 861-871. DOI: <http://dx.doi.org/10.2308/acch-50048>. URL: <http://ssrn.com/abstract=1768083>

Bloch, Marc (1954), *Esquisse d'une histoire monétaire de l'Europe*, Cahiers des Annales, n° 9, Armand Colin, Paris.

Burchell, S., Clubb, C., Hopwood, A. and A. Hugges (1980), The roles of accounting in organizations and society, *Accounting, Organizations and Society*, 14: 1-22

Christophers, Brett (2013), *Banking Across Boundaries: Placing Finance in Capitalism*, Wiley-Blackwell.

Erturk, I., J. Froud, J. Sukhdev, A. Leaver and K. Williams (2012), "Accounting for national success and failure: Rethinking the UK case," *Accounting Forum* 36, p. 5-17.

European Commission (2011), Communication de la Commission au Parlement européen et au Conseil, « Vers une gestion solide de la qualité pour les statistiques européennes », COM(2011) 211, le 15 avril 2011, Bruxelles

European Commission (2011b), ER Accounting Rule No 17: Revenue from non-exchange transactions (taxes and transfers), October 2011.

European Commission (2012), Overview and comparison of public accounting and auditing practices in the 27 EU Member States. Survey prepared by Ernst&Young for Eurostat, Final Report, 19 December 2012. URL : http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/government_accounting

European Commission (2013), « Vers l'application de normes comptables harmonisées pour le secteur public dans les États membres. L'adéquation des IPSAS pour les États membres », Rapport de la Commission au Conseil et au Parlement européen, SWD(2013) 57, COM(2013) 114, 6 Mars 2013, Brussels. URL : http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/government_accounting

European Commission (2013b), Commission Staff Working Document Accompanying the European Commission Report (2013), SWD(2013) 57, COM(2013) 114, 6 Mars 2013, Brussels. URL : http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/government_accounting

European Council (1993), Council Regulation (EC) No 3605/93, 22 November 1993, on the application of the Protocol on the excessive deficit procedure annexed to the Treaty establishing the European Community. OJ L 332, 31.12.1993, p. 7.

European Union (2012), "Consolidated treaties. Charter of fundamental rights," Luxembourg: November 2012. <http://www.consilium.europa.eu/documents/treaty-of-lisbon?lang=en>

Eurostat (2002), ESA95 manual on government deficit and debt, European Commission, 30 April 2002, Luxembourg.

Eurostat (2012), Public consultation – Assessment of the suitability of the International Public Sector Accounting Standards for the Member States. Summary of Responses, European Commission, Directorate D Government Finance Statistics (GFS), Unit D-4 : GFS quality management and government accounting, 18 décembre 2012, Luxembourg.

FASB – Financial Accounting Standards Board (1985), Statement of Financial Accounting Standards No. 87, Employers' Accounting for Pensions, December 1985, Norwalk (Connecticut, USA).

Gendron, Y., Cooper, D. J., and B. Townley (2001), In the name of accountability. State auditing, independence and new public management, *Accounting, Auditing and Accountability Journal*, 14: 278-310

Hood, C. (1995), The New Public Management in the 1980s: Variations on a theme, *Accounting, Organizations and Society*, 20: 93-109

Hopwood, A. (1987), The archeology of accounting systems, *Accounting, Organizations and Society*, 12 (3): 207-234

Hopwood, A. (1989), Accounting and organization change, *Accounting, Auditing and Accountability Journal*, 3 (1): 7-17

International Monetary Fund (2011), « Public Sector Debt Statistics. Guide for Compilers and Users, » Washington DC. URL : <http://www.tffs.org/PSDStoc.htm>

IPSABB - International Public Sector Accounting Standards Board (2010b), "Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities," Conceptual Framework Exposure Draft N. 1, December 2010.

IPSASB - International Public Sector Accounting Standards Board (2010), International Public Sector Accounting Standard No. 29, « Financial Instruments: Recognition and Measurement », IFAC, January.

Kahn, Abdul and Stephen Mayes (2009), Transition to Accrual Accounting, authorized for distribution by Carlo Cottarelli, Technical Notes and Manuals, Fiscal Affairs Department, International Monetary Fund, September 2009

Littleton, A. Charles (2011) "Economists and Accountants," *Accounting, Economics, and Law: A Convivium*, 1 (2), Article 2. DOI : <http://dx.doi.org/10.2202/2152-2820.1038>

Neu, D. (2006), "Accounting for public space", *Accounting, Organizations and Society*, 31: 391-414

Oulasvirta, Lasse (2008), "How should pension benefit liabilities and social policy cash transfer liabilities be presented in the government financial statements: Current presentation mode or the mode of international IPSAS standards?," *LTA- The Finnish Journal of Business Economics*, 2 (2008), pp. 223-237. URL: http://lta.hse.fi/2008/2/lta_2008_02_d5.pdf

Oulasvirta, Lasse (2013) "The reluctance of a developed country to choose International Public Sector Accounting Standards of the IFAC. A critical case study," *Critical Perspectives on Accounting* (2013). DOI:10.1016/j.cpa.2012.12.001.

Perroux, François (1949) *Les comptes de la Nation. Apparences et réalités dans notre comptabilité nationale*, Paris, Presses universitaires de France.

Pitzer, John et Jean-Pierre Dupuis (2006), The General Government and Public Sectors, Paper presented at the fifth meeting of the Task Force on Harmonization of Public Sector Accounting (TFHPSA), Chaired by the International Monetary Fund, Hosted by the OECD, Paris, France—March 8–10, 2006. URL : <http://www.imf.org/external/np/sta/tfhpsa/2006/03/pdf/govern.pdf>

Power, M. (1996), Making things auditable, *Accounting, Organizations and Society*, 21: 289-315

Schumpeter, A. Joseph (1946), *History of economic Analysis*, Oxford: Oxford University Press.

Skaerbaek, P. (2009), Public sector auditor identities in making efficiency auditable: The National Audit Office of Denmark as independent auditor and modernizer, *Accounting, Organizations and Society*, 34: 971-987

Suzuki, Tomo (2003a), The accounting figuration of business statistics as a foundation for the spread of economic ideas, *Accounting, Organizations and Society*, 28: 65-95

Suzuki, Tomo (2003b), The epistemology of macroeconomic reality: The Keynesian revolution from an accounting point of view, *Accounting, Organizations and Society*, 28: 471-517

Appendix A – Illustration of basic relationship between public debt and deficit dynamics under accruals basis of accounting

This appendix illustrates by numerical example the relationship between deficit and debt in an accruals basis of accounting. Let make simple assumptions on economy and finances of accounted public sector entity. For sake of simplicity, we assume that this entity acquires only one tangible asset which lasts for five years; this acquisition is fully covered by public debt with the same debt installment schedule as the asset depreciation pattern. This excludes refinancing tangible asset investment over time if current tax contributions cover for depreciation charges. We further assume that operating expenses are constant over time. All refinancing needs are covered by public debt at the same constant interest rate as the original public debt for tangible asset investment purpose (5% per year on outstanding debts). These latter debt lines are incurred but not refinanced, for sake of simplicity. All payments are performed at the end of the reference period.

We develop three scenarios. Under A scenario, accounted entity raises contributions from taxation to cover all the expenses (operating expenses, interest charge and depreciation charge). Under B scenario, entity raises contributions from taxation that cover only operating and interest charge. Under C scenario, entity raises contributions from taxation that cover only operating expenses.

Scenario A

This scenario shows that current and cumulated surplus (deficit) is null as long as tax contributions cover for all accruals-based expenses incurred by public administration. The public debt can then be reimbursed over time.

	Periods	1	2	3	4	5
INCOME STATEMENT						
Expenses		100,0	100,0	100,0	100,0	100,0
Interest charge		5,0	4,0	3,0	2,0	1,0
Depreciation charge		20,0	20,0	20,0	20,0	20,0
TOTAL Expense		125,0	124,0	123,0	122,0	121,0
Tax Contributions covering:						
Expenses		100,0	100,0	100,0	100,0	100,0
Interest charge		5,0	4,0	3,0	2,0	1,0
Depreciation charge		20,0	20,0	20,0	20,0	20,0
TOTAL Revenue		125,0	124,0	123,0	122,0	121,0
<i>Net Surplus (Deficit)</i>		0,0	0,0	0,0	0,0	0,0
Net cash flows from operations		20,0	20,0	20,0	20,0	20,0
Debt installment		20,0	20,0	20,0	20,0	20,0
Balance		0,0	0,0	0,0	0,0	0,0

BALANCE SHEET

Gross Asset	100,0	100,0	100,0	100,0	100,0
Cumulated Depreciation	20,0	40,0	60,0	80,0	100,0
Net Asset	80,0	60,0	40,0	20,0	0,0
Initial Outstanding Debt	100,0	100,0	100,0	100,0	100,0
Cumulated Amortization	20,0	40,0	60,0	80,0	100,0
Final Outstanding Debt	80,0	60,0	40,0	20,0	0,0
<i>Cumulated surplus (deficit)</i>	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>

Scenario B

This scenario shows that current surplus (deficit) is negative but stable as long as tax contributions cover for operating expenses and interest charges incurred by public administration. Cumulated deficit should then be refinanced by issuance of new debt to refinance investment positions (if no new investment is incurred, cumulated debt becomes stable over time).

	Periods	1	2	3	4	5
INCOME STATEMENT						
Expenses		100,0	100,0	100,0	100,0	100,0
Interest charge		6,0	6,0	6,0	6,0	6,0
Depreciation charge		20,0	20,0	20,0	20,0	20,0
TOTAL Expense		126,0	126,0	126,0	126,0	126,0
Tax Contributions covering:						
Expenses		100,0	100,0	100,0	100,0	100,0
Interest charge		6,0	6,0	6,0	6,0	6,0
Depreciation charge		0,0	0,0	0,0	0,0	0,0
TOTAL Revenue		106,0	106,0	106,0	106,0	106,0
<i>Net Surplus (Deficit)</i>		<i>-20,0</i>	<i>-20,0</i>	<i>-20,0</i>	<i>-20,0</i>	<i>-20,0</i>
Net cash flows from operations		0,0	0,0	0,0	0,0	0,0
Debt installment		20,0	20,0	20,0	20,0	20,0
Balance		-20,0	-20,0	-20,0	-20,0	-20,0
BALANCE SHEET						
Gross Asset		100,0	100,0	100,0	100,0	100,0
Cumulated Depreciation		20,0	40,0	60,0	80,0	100,0
Net Asset		80,0	60,0	40,0	20,0	0,0
Initial Outstanding Debt		100,0	100,0	100,0	100,0	100,0
Cumulated Amortization		20,0	40,0	60,0	80,0	100,0

Final Outstanding Debt	80,0	60,0	40,0	20,0	0,0
<i>Cumulated surplus (deficit)</i>	<i>-20,0</i>	<i>-40,0</i>	<i>-60,0</i>	<i>-80,0</i>	<i>-100,0</i>

Scenario C

This scenario shows that current surplus (deficit) is negative and increasing as long as tax contributions do not cover for interest and depreciation charges incurred by public administration. Cumulated deficit should then be refinanced by issuance of new debt, to refinance investment positions and cover for interest charge as well. The same result holds when tax contributions do not cover for operating expense.

	Periods	1	2	3	4	5
INCOME STATEMENT						
Expenses		100,0	100,0	100,0	100,0	100,0
Interest charge		6,3	6,6	7,0	7,4	7,8
Depreciation charge		20,0	20,0	20,0	20,0	20,0
TOTAL Expense		126,3	126,6	127,0	127,4	127,8
Tax Contributions covering:						
Expenses		100,0	100,0	100,0	100,0	100,0
Interest charge		0,0	0,0	0,0	0,0	0,0
Depreciation charge		0,0	0,0	0,0	0,0	0,0
TOTAL Revenue		100,0	100,0	100,0	100,0	100,0
<i>Net Surplus (Deficit)</i>		<i>-26,3</i>	<i>-26,6</i>	<i>-27,0</i>	<i>-27,4</i>	<i>-27,8</i>
Net cash flows from operations		-6,3	-6,6	-7,0	-7,4	-7,8
Debt installment		20,0	20,0	20,0	20,0	20,0
Balance		-26,3	-26,6	-27,0	-27,4	-27,8
BALANCE SHEET						
Gross Asset		100,0	100,0	100,0	100,0	100,0
Cumulated Depreciation		20,0	40,0	60,0	80,0	100,0
Net Asset		80,0	60,0	40,0	20,0	0,0
Initial Outstanding Debt		100,0	100,0	100,0	100,0	100,0
Cumulated Amortization		20,0	40,0	60,0	80,0	100,0
Final Outstanding Debt		80,0	60,0	40,0	20,0	0,0
<i>Cumulated surplus (deficit)</i>		<i>-26,3</i>	<i>-53,0</i>	<i>-80,0</i>	<i>-107,3</i>	<i>-135,1</i>

Appendix B – Accounting for financial liabilities according to the study conducted by Ernst&Young annexed to the Report 2013 of the European Commission (2013c). Our elaboration

Member State (Central Government)	Recognition Method	Measurement Method	Euro Zone Membership (entry year)
Austria	Accrual Accounting	Historical cost method	1999
Belgium	Accrual Accounting	Historical cost method	1999
Bulgaria	Accrual Accounting	Historical cost method	-
Cyprus	Modified Cash Accounting	Historical cost	2008
Czech Republic	Accrual Accounting	Historical cost Fair value	-
Denmark	Accrual Accounting	Face value	-
Estonia	Accrual Accounting	Historical cost method Fair value method	2011
Finland	Accrual Accounting	Cost	1999
France	Accrual Accounting	Historical cost method [preferred] and present value (e.g. financial debt arising from service concession arrangements)	1999
Germany (excluding amounts shown under other positions)	Accrual Accounting	Nominal value	1999
Greece	Accrual Accounting	Historical cost method	2001
Ireland	N/A	N/A	1999
Italy	Modified cash accounting	Historical cost method	1999
Latvia (excluding amounts shown under other positions)	Accrual Accounting	Fair value method	-
Lithuania	Accrual Accounting	Present value method	-
Luxembourg	Accrual Accounting	Historical cost method	1999
Malta	Accrual Accounting	Historical cost method	2008
The Netherlands	Cash Accounting	Historical cost method	1999
Poland	Accrual Accounting	Historical cost or market value method	-
Portugal	Accrual Accounting	Historical cost method	1999
Romania	Modified accrual accounting	Cost	-
Slovakia	Accrual Accounting	Historical cost method	2009
Slovenia	N/A	N/A	2007
Spain	Accrual Accounting	Cost, Fair Value and Present Value	1999
Sweden	Accrual Accounting	Historical cost method	-
United Kingdom	Accrual Accounting	Fair value method	-

Appendix C – Accruals-based golden rule

In a recent technical note and manual of IMF, Kahn and Mayes (2009) do claim for inclusion of employee liabilities (such as civil service pensions) as a clear advantage of accruals-based accounting. Furthermore, they claim for reshaping the “golden rule” on an accruals basis of accounting, drawing upon a balance sheet approach:

the so-called “golden rule,” which has been adopted in some countries, may arguably be best articulated in accrual accounting terms. The golden rule prohibits borrowing to meet any of the costs of current service provisions by government. If it is accepted that the accrual concept of “expenses” is the best accounting measure of the costs of current service provision, it follows that the golden rule requires that the budget be balanced in accrual terms over the business cycle. Expressed differently, this involves an interpretation of the golden rule as permitting only the financing of **net**, and not gross, investment by borrowing (i.e., it requires that depreciation, as one of the costs of current service provision, should be met from revenue rather than borrowing). (Kahn and Mayes 2009, p. 4).

This proposal corresponds to scenario A illustrated in our Appendix A, where no public debt is structurally incurred, unless for temporarily circumstances related to the business cycle, they said. This reform factually contradicts the way governments and monetary bases have been administered for centuries. Should we abandon maintaining the monetary basis through public debt issuance and use as collateral? Should we replace it with privately issued debt, privatizing the monetary basis administration? Purchasing *power* would be then entirely trusted to the private sector, while public service activities should materially shrink for lack of funding.

Kahn and Mayes (2009) provide two cases for accruals-based golden rule: “The case of the ‘costless’ civil service pay increase,” and “the case of the ‘amazingly inexpensive’ police vans” (ibidem, box 3, p. 5):

The case of the “costless” civil service pay increase

A political party in country X promised certain civil service salary increases as part of its election pledges. On winning office, the government found that the promised pay rise would increase the budget deficit to a financially unsustainable level. So the government rescinded the promised pay rise and instead introduced a generous increase in pension entitlements. As the pension increases did not have an immediate cash impact, the budget deficit of the current year, calculated under the cash accounting basis, was unaffected and the additional future pension liabilities were hidden from public scrutiny.

Under a full accrual accounting framework, the increased pension costs would be reflected in the budget bottom line in the year in which the costs were incurred, irrespective of the fact that no cash would be paid for sometime in the future.

The case of the “amazingly inexpensive” police vans

The police force in country Y acquired a fleet of vehicles the purchase price of which were to be paid in three annual installments. The cash budget showed only one third of the total cost

in the first year's budget. The full cost of the vehicles were [sic] not transparent and the budget deficit did not reflect the cost of the government's purchasing decisions.

Under an accrual accounting framework, the full liability for the vehicles purchased would be reflected in the accounts.

The first case relates to provisioning for future employee benefits which is already addressed in our main text. In sum, since governments do not distribute earnings or maintain financial (or real) capital, they do not need to include them in their accruals-based accounts. The authors confound here "full cost information (including including noncash costs such as depreciation, and accrued civil service pensions)" with governmental financial management and accounting.

The second case is not solved by accruals basis of accounting. Quite the contrary, that liability for tangible asset acquisition may be put off-balance sheet through structuring opportunities (related to leases and other deconsolidating operations) that are allowed by current accounting standards such as IPSAS and IFRS (Biondi et al. 2011).

An extended cash basis of accounting may effectively address both cases, as far as governmental financial management and accounting are concerned, "to ensure that the government is able to meet its liabilities as they fall due." (ibidem)