Making Governmental Accounting More Practice-Relevant: Practitioner's Perspective

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1. Introduction and Background

In fact, research in public sector accounting should ultimately fulfil a practical purpose (Ouda, 2005) and should aim at improving the public sector accounting practice in the same way as the goal of medical research is to improve medical practice. The many breakthroughs today in medical practice would have been impossible without medical research. In medicine, there is a symbiotic relationship among medical research, medical education, and medical practice (Inane and Schneider, 2005). The picture is different in public sector accounting. The relationship is disjointed, with wide gaps between public sector accounting education, public sector accounting research, and public sector accounting practice. While CIGAR scholars and IFAC-IPSASB have exerted great efforts in the last three decades to develop the public sector accounting, these efforts are still of little value to the public sector accounting practice. This is due to the fact that their efforts were not mainly directed towards improving the public sector accounting practice, but they were simply directed to describe or understand or critique it. Similar to what has been claimed by Choudhury (1986, p.24) for the management accounting research, public sector accounting research is also relevant to practice when it helps practitioners to understand their organizations and to improve practices, and when it contributes to a theoretical body of knowledge that is beneficial to effective organizational change in the future. Accordingly, public sector accounting research should be redirected to focus on creating better practices and developing the public sector accounting as academic discipline. While the movement towards the New Public Management (NPM) has required the reforming of public sector accounting through the adoption of accrual accounting in the public sector (Hood, 1995; Ball and Grubnic, 2008), Lapsley, Mussari and Paulsson (2009) have argued that despite the limited evidence available on the efficacy of accrual accounting system, the world of public sector accounting practice regarded the adoption of accrual accounting as progress, as self-evident**,** but on the other hand, they consider it as a ***'problematic'*** reform. In fact, it is a problematic reform because the adoption of accrual accounting in the public sector has been based on one-size-fits all model which applies the conventional accrual accounting, that is developed for the private sector, to the public sector entities without taking into consideration that the public sector entities and assets are differentiated in purpose and essence. Yes, it is a problematic reform, because public sector accounting scholars did not develop and translate the accrual accounting principles and assumptions (which are originally designed for measuring the net income in the private sector) to be appropriate for the public sector accounting practice and for the specific nature of public sector entities. In addition, the public sector accounting scholars did not develop more practice-relevant recognition and measurement criteria for specific public capital assets. Furthermore, as a result of wider range of potential users that General Purpose Financial Reporting (GPFRs) by public sector entities expected to serve, the scope of financial statements in public sector should be expanded to include financial and non-financial information whether this information may be presented in the notes to financial statements or in separate reports included in general purpose financial reporting (IFAC, 2013). Reporting such information is necessary for government to discharge its obligation to be accountable-that is, to account for, and justify the use of, the resources raised from or on behalf of constituents (IFAC, 2013). In addition, the financial reporting of public sector entities needs to be expanded to provide information about the financial commitments that can have impact on sustainability of service delivery. Accordingly, the new set of financial statements should include all items that will affect the fiscal sustainability of government in the future, for example, to be supplemented by separate statement of future and contingent liabilities, statement of commitments and trust assets statement that include heritage assets in physical units.

Moreover, one of the common themes for the adoption of accrual accounting in the public sector is the discharge of accountability. However, there is argument in the literature strongly debate whether the requirement for public sector entities to provide financial statements based on the private sector GAAP impacts positively or negatively on public sector accountability outcomes (See for example, Barton, 1999; Carnegie and West, 2005; Wild, 2013, Micallef and Peirson, 1997; Cooper and Owen, 2007).). The discharge of accountability obligations requires the provision of information about the entity's management of resources entrusted to it for the delivery of services to constituents and others. Given the way in which the service provided by public sector entities are funded (primarily by taxation revenues or other non-exchange transactions) and the dependency of service recipients on the provision of those services over the long term, the discharge of accountability obligations will also require the provision of information about such matters as the entity's service delivery achievements during the reporting period, and its capacity to continue to provide services in future periods (IFAC, 2013).

Frankly speaking, when an accounting method is introduced into a new environment, "it is naïve to assume that by simply assembling the components of a system that a desired or officially intended outcome will be achieved" (Hodges, 2013). The long-standing academic argument for using accrual accounting in the public sector (Taussig, 1963), appears to have missed some necessary adjustments that should be available for adopting accrual accounting in the public sector. The general finding is that mimicry of private sector techniques can be imposed and apparently complied with but that their assimilation into the culture of the public sector, if it is achieved at all, will take a considerable period of time and require a considerable changes that makes it suitable for the public sector entities that are differentiated in purpose and essence. A general lack of incentive to innovate accounting practices that can lead to consistency and comparability between countries has led to the diversity of accrual accounting norms and practices that have been shown by the different countries which have already adopted accrual accounting in their public sector such as the New Zealand, UK, and Australia. It is clear that the policy-makers within each country were not concerned with achieving comparability between countries (Berit, et al, 2011). In addition, Mellett et al (2009) argue that although the adoption of accrual accounting in the public sector requires some necessary adaptation, public sector accounting policies start from the private sector's Generally Accepted Accounting Practices (GAAP) and change only where it is necessary to match them with the different environment of the public sector; such amendments have been relatively few in practice. The lack of such amendments/adjustments and the differences between the public and private sectors give rise to troubling to practitioners. Accordingly, the following question can be raised:

What are the necessary adjustments that should be available for making governmental accrual accounting more practice relevant for the practitioners?

Consequently, the underlying objective of this paper is to build a start-up point for developing a more practice-relevant version of accrual accounting that will improve the public sector accounting practices and hence it helps the practitioners to understand the nature of the governmental entities and how to apply the accrual accounting to the public sector. Our paper's contribution to the literature is threefold: Firstly, making government accrual accounting more practice relevant should be approached from two perspectives: users' perspective and practitioners' perspective, this is due to the fact that public sector entities and assets are differentiated in purpose and essence which in turn requires from public sector scholars to find practical solutions for the challenging accrual accounting issues that cause troubling to practitioners and to challenge the design of public sector accounting to better fit into users practice and to meet the diverging needs of different users. Secondly, making clear how matching principle can be applied to the public sector. It is inferred that the most practical way for the application of matching principle to the public sector entities is to be based on timing relationship instead of exchange relationship. Thirdly, the paper has developed a practical holistic accounting approach for capital assets. This approach is based on creating two new recognition criteria and three sub-approaches which include economic businesslike approach, assets-liability- matching approach for the unrestricted assets and non-assets-liabilities-matching approach for the restricted assets.

The remainder of the paper is structured as follows. Second section addresses the practical relevance of public sector accounting from two perspectives. Third section will deal with the challenging issues of accrual accounting in the public sector and the necessary adjustments for these challenging issues such as the application of matching principle in public sector and developing new recognition criteria and accounting approach for capital assets. The paper is concluded in Section 4.

2. Practical relevance of public sector accrual accounting: Two perspectives

In reality, the experience of and problems encountered by the earlier public sector accounting reformer countries can lead us to conclude that the practice-relevance of public sector accounting should be addressed from two perspectives: ***1- Practice-relevant***

from user's perspective which requires the public sector accounting scholars to use the practice-oriented co-design approach, which integrates the efforts of accounting researchers, practitioners, consultants and standard-setting bodies together to produce a practice-relevant government accounting and financial reporting system that considers the diverging needs of different users. In addition, co-design makes users act as experts of their own experience by actively involving them in all design decisions and these decisions should be taken within the context of the users, their needs and their environment. Also the user's perspective requires that government accounting should start a new era that shifts its focus on attempting to fit users and their needs into the design process to challenging the design process to better fit into users' practice. ***2- Practice-relevant from practitioner's perspective*** which requires the public sector accounting scholars to produce a new accrual accounting version for the public sector that considers the specific nature and essence of the governmental entities and tackles the practical accounting issues of concern to the practitioners. This paper focuses only on the second perspective as the first perspective has already been addressed by Ouda (2015). Guthrie et al (2011) argue that the impact of research in some disciplines is easy to discern, such as in medicine, where advances in medical procedures and developments of new drugs result in benefits to society. For accounting, this impact is not so easy to discern (Tilt, 2010). For example, in the field of accounting there have been claims that research has become too far removed from the interests of the profession and practitioners. Singleton-Green (2010) also argued that some in the accounting research community go so far as to consider that many practical issues of concern to practitioners do not warrant the attention of researchers. The accounting researchers should recognize the fact that if their accounting research lacks practical relevance, they will lose the potential impact from the academic to the practitioners' community. Practitioners can disregard accounting research on the grounds that it is perceived that the latter is working on a completely different agenda to the former. It is only when public sector accounting research develops ideas that are directly related to the specific and immediate problems of practice that accounting research becomes relevant (Laughlin, 2011). Now it is the time that accounting researchers should work together with the practitioners to find practical solutions for outstanding public sector accounting issues and stop to spend their entire career just talking to other accounting researchers about their work through conferences and journals. Otherwise, the practitioners will see accounting research as a pointless exercise unless the research is deemed to be practice relevant. So this paper is calling the public sector accounting researchers for getting closer to practice and to study public sector accounting in the context of unique nature of the government (in comparison with business) as well as the significant characteristics of its environment within which it operates. Overall, a clear message for public sector accounting researchers is that more work needs to be done if the academy is to claim to have an impact on practice (Cuganesan and Gainsford, 2011). In essence, in the field of public sector accrual accounting domain, there is an urgent need to encourage the academic researchers to explore financial reporting issues that will assist in the setting of accounting standards which in turn lead to improving the public sector accounting practice. Accordingly, there are several challenging issues related to the adoption of accrual accounting in the public sector that require to be addressed in a way that assist the practitioners in better understanding of the specific nature of public sector entities and in improving the public sector accounting practice. For example, accrual accounting is based on some principles and postulations (e.g. matching principle and going concern postulate) that have been used for decades as an obstacle in the way of its adoption in the public sector. These principles and postulations need a further clarification and making clear how they can be applied to the public sector (Ouda, 2007). Another issue, public sector entities include capital assets that do not aim at generating cash flow such as Heritage Assets which are maintained and controlled by the government for cultural, historic, recreation and other community purposes rather than for the purpose of income generation (Barton, 2000). Examples of heritage assets comprise work of arts, antiquities, collection of rare books, historical monuments, conservation areas, historical building, archaeological sites, and nature reserves. Accordingly, there is a need for developing new criteria for the recognition and measurement of such as assets and other public capital assets. Indeed, there is an urgent need for reconsidering the conventional accrual accounting issues in a way that takes into account that public sector entities are differentiated in purpose and essence. This in turn can assist in developing a more practice-relevant version of accrual accounting that helps the practitioners to improve the public sector accounting practice. Consequently, the development of a more practice-relevant version of accrual accounting for the practitioners should be based on reconsidering the following dimensions:

- Accrual accounting principles and postulations dimension;
- Recognition, definition and measurement of capital assets dimension;
- Scope of General Purpose Financial Reporting (Financial statements) dimension; and
- Accountability Dimension.

Indeed, addressing these dimensions from the practitioners' perspective is necessary for improving the public sector accounting practice. However, this does not mean that we are going to start from scratch, as the conventional accrual accounting principles, assumptions, standards and concepts are familiar to accounting practitioners and academics but there are some principles, assumptions and concepts which are challenging and need to be reconsidered in the context of the specific nature and essence of the public sector entities in comparison with the private sector firms. Namely, the focus will be on whether the differences between public sector entities and private sector firms are so fundamental that they call for a different basis of reporting; or whether they are not essential differences and they require modifications for the conventional accrual accounting principles, assumptions and concepts. Accordingly, the aforementioned dimensions should be reconsidered in terms of whether the differences are: (van Peursem, 2006):

- "Conceptual" with implications for creating new standards and concepts;
- "Adaptable" which are conceptually the same and therefore may tolerate standards with adaptation; or finally

- Minor or Equivalent to private sector principles and practices and thus represent situations in which little adaptation is likely to be needed in order to apply private sector standards to public sector entities.

Consequently, I will concentrate only on the accrual accounting issues that lead to a conceptual challenge/difference and need to be reconsidered in terms of creating new concepts, recognition criteria and standards. Therefore, the main focus will be on the challenging issues that may cause troubling to practitioners and represent a fundamental departure from a commercial framework such as: Matching principle; recognition and measurement criteria of capital assets especially for heritage assets and defense assets; recognition of non-exchange revenues; and certain liabilities. However, it is difficult to tackle the four challenging issues in one paper; therefore, this paper will addresses the first two challenging issues and keeping the last two challenges for other paper.

3. Accrual Accounting Challenging Issues

3.1 Matching Principle

Basically, accrual accounting and its matching principle is designed for measuring the net income in the private sector. Measuring of net income process requires the identification of both revenues and the assets which expired in generating those revenues. This process of identifying revenue and related expired assets (expenses) utilized to generate it, is called matching (Ouda, 2007). The essence of matching principle is to compare that generated with that taken to generate it (van Peursem, 2006). Ingram et al (1991) argue that matching of costs and revenues refers to the simultaneous or combined recognition of revenues and expenses that result directly and jointly from the same transactions or other events. The New Zealand Society of Accountants stated that matching of expenses and revenues... Under accrual accounting, expenses and revenues are recognized as they are incurred or earned (rather than as money is paid or received) and recorded in the financial statements of the period to which they relate. Results for the period are determined by matching expenses with the related revenues (NZSA, 1987b, para 4.2 (a).

This means that the application of matching principle in the private sector is based on a cause-and-effect relationship between reported expenses and reported revenues. Therefore, the direct link between revenues and expenses is a prerequisite in order to apply the matching principle (Ouda, 2007). Based on the direct relationship between the revenue generated and expenses used to generate it, it is logic to apply the matching principle in the private sector where the capital enables the managers to incur expenses which subsequently lead to the generation of revenues. However, the implementation of accrual accounting in the public sector entails the application of matching principle but the direct link between revenues and expenses is missing in the public sector. Moreover, public sector entities do not aim at making profit but at serving the public interest by providing public goods and services. The revenues are generated through a political process, not as a result of expenditures made by the public sector entities. If therefore, we attempt to match expenses to resources inflows, this will offer dilemma (van Peursem, 2006). This is that the inflows accrued through political means cannot be reasonably matched to expenses accrued from payouts for what Rutherford (1983) terms self-sustaining operations. Private sector enterprise is self-sustaining whereas public sector entities transfer, collect or distribute wealth and support a public good.

Accordingly, the opponents of adoption of accrual accounting and its matching principles in the public sector have concluded that accrual accounting with its matching principle cannot generally be properly applied to governmental organizations (Monsen and Nasi 1997, p.13). In addition, van Peursem (2006) has concluded that unfortunately, alternatives to a traditional matching of revenue with expenses do not offer themselves up. It makes little sense to match politically-derived resources (taxes, grants and contributions) to internally-managed expenses and where outputs may be nonfinancial. Van Peursem further notes that matching is no longer distinguished as a "principle" in New Zealand standards and yet, no apparent replacement has been found to represent the unique situation of public benefit entities. The problem remains therefore: How can one achieve relevance in netting politically-driven resources against managerially-driven costs and he also added that while I do not propose an answer here, it would seem that to match numbers simply because they are all monetary does not yield a satisfactory results (van Peursem, 2006). In fact, applying matching principle without making the necessary adjustments represents a dilemma for the practitioners in the public sector entities, therefore we, as public sector accounting scholars, should find solution for this dilemma. Laughling (2008) argues that "some of the [private sector] underlying concepts and standards need reshaping to allow them to fit the context of public benefit entities. In doing so, we should take into consideration that the public sector entities and assets are differentiated in purpose and essence. While private firms exist in an environment of competition, equity return and decision-usefulness, and their reporting requirements reflect this, moreover, the profit motive also explains user interest in statements of 'income' and in the accumulated earnings that can be returned to owners (van Peursem, 2009), the situation is entirely different in the public sector as:

... Governments ... are elected by citizens to make collective decisions on their behalf to provide those goods and services which cannot readily be provided by private firms, and those for social welfare purposes (Barton, 2005, p. 141-142). *And in standards: Public benefit entities are reporting entities whose primary objective is to provide goods or services for community or a social benefit* (NZICA, 2007c, para. 8.2)

As a result of differences in the objectives between public sector entities and the private sector firms, the matching principle should be reshaped to fit the context of public sector entities. *Basically, for the governmental entities the net annual measure is of the net resources consumed to provide services during the year and net accumulated figure is a measure of unconsumed economic resources* (IFAC, 1991, p.16). In this context, Ouda (2003) has suggested ***the Conceptual Approach*** which assumed that matching principle can be applied to the public sector entities to match resources consumed during the accounting period with services and goods provided (and usefulness accomplished) during the same accounting period or to match outputs with the associated costs. By this way, the conceptual approach does not aim at measuring the net income; instead, it measures the efficiency of governments in using the available resources:

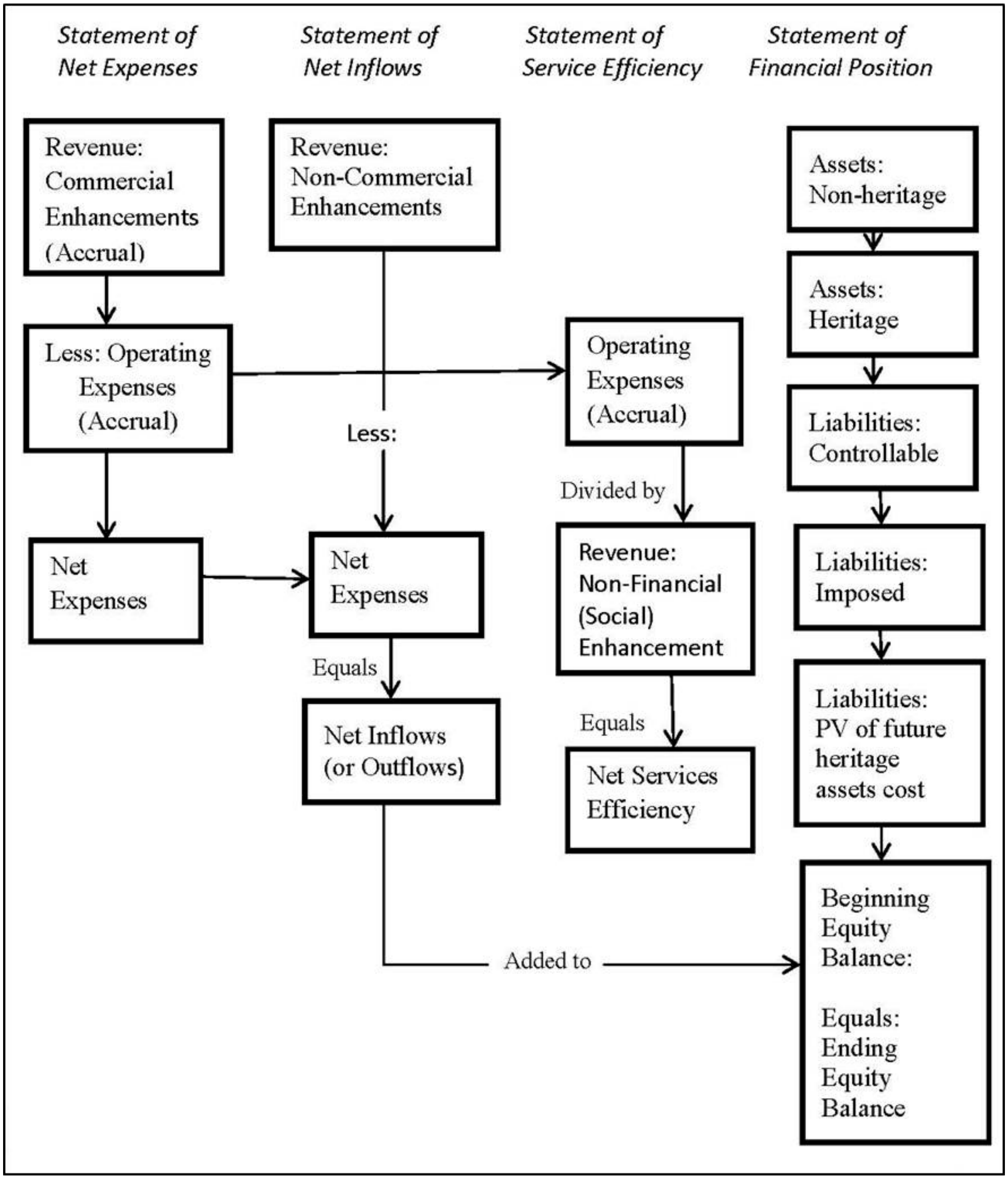
Matching principle = services provided [output] -- matched with -- resources consumed [input] = Government efficiency

However, the operationalization of the conceptual approach through the financial statements has revealed that it is not possible to gauge efficiency from the financial statements, since one has to determine whether the outcomes (the policy objectives, for example) have been delivered (Ouda, 2007). If they have been delivered, then one can ask whether they could have been delivered as effectively for a lower cost – which is the efficiency point. So it has been found that it is so difficult and even it is impossible to prove the conceptual approach by the financial statements, as they do not indicate the level or the quality of the good and services which have been provided. Accordingly, we think that the conceptual approach is only right to the extent that the accruals accounts show the resources consumed in providing services. That is, the inputs are matched against the outputs in financial reporting terms but the inputs and outputs are not matched against the outcomes (Ouda, 2007). In fact, this conclusion makes us to agree with Guthrie (1998) about his comment on the National Commission of Audit NCA 1996, Australia: “it has been argued that the changes from the use of cash based statements to accrual based statements reflect a focus on an efficient and effective output and outcome (National Commission of Audit NCA 1996, Australia). This fails to recognize the reality that accounting statements are themselves focused on inputs. Outcomes are no more easily measured via the use of accrual financial reporting than cash based reporting and are usually determined on the basis of separate surveys, for example of customer satisfaction or the state of health or education (Guthrie, 1998)”. Similar to the conceptual approach, van Peursem (2009) has suggested a Conceptual Public Benefit Entities (PBE) Reporting framework where he replaced the traditional Statement of Income by two statements: the Statement of Net Expenses and of Service Efficiency. The Statement of Net expenses includes operating expenses matched only with commercial/earned revenues this is to distinguish between earned revenue and non-earned (political) revenue. The non-earned (non-commercial) revenue is included in Statement of Net Inflows which is equivalent to the commercial Cash Flow Statement. In using this title, there is a desire to convey that Net Inflows are not equivalent to Net Income (van Peursem, 2009). The Statement of Service Efficiency is used to match costs to non-financial enhancement (outputs). The Statement of Service Efficiency compares non-financial enhancements (outputs) to managed costs (inputs), and holds public sector benefit entities to account for their productivity in proportion to the outflows employed in reaching them. Van Peursem (2009) further notes:

While the ending balance from the Statement of Service Efficiency, being in ratio form, cannot be carried forward as would Net Income, it need not be as equity does not represent accumulated earnings in the PBE sector. The Statement of Service Efficiency’s contribution is in disclosing a PBE proxy for managerial efficiency, which is of value to the reader presumably no less than its equivalent (Net Income) is of value to commercial report users.

To avoid repeating, I see that the same criticism directed to the Ouda's Conceptual Approach can also be directed to the Van Peursem Statement of Service Efficiency. As earlier noted, the efficiency cannot be measured from the financial statements as this requires matching outputs with inputs and this fails to recognize the reality that accounting statements are themselves focused on inputs (Guthrie, 1998). In addition, the conceptual framework of van Peursem (2009) gives rise for considerable confusion to practitioners as it distinguishes the commercial revenue from non-commercial revenue and both revenues are included in different statements. Namely, commercial revenue is included in the Statement of Net Expenses and non-commercial revenue is included in the Statement of Net Inflows while he considered the latter is equivalent to the commercial Statement of Cash Flows. This means that the commercial and non-commercial revenues are not included in one statement which makes the application of matching principles to the public sector entities more difficult. In fact, he did not provide practical solutions on how matching principle can properly be applied to the public sector entities but rather he made the situation more complicated for the public sector practitioners. See the following conceptual PBE reporting framework:

Van Peursem (2009): Conceptual PBE Reporting Framework



To assist the practitioners in applying the matching principle to the public sector entities and due to the difficulties inherent in the operationalization of the conceptual approach and van Peursem conceptual framework, there is an urgent need to address the application of matching principle to the public sector entities in a practical way that can justify the adoption of accrual accounting and its matching principle.

Practical Approach: Timing Relationship

The corner stone of the practical approach (Ouda, 2007) is that the adoption of accrual accounting with its matching principle in the public sector will allow for the measurement of the total cost of providing services on an aggregated basis and also allow for more accurate cost measurement of specific programs and activities. The total costs include not only the cost of goods and services produced or purchased and paid during the accounting period but also the cost of using long-lived assets (e.g. depreciation and cost of capital) and other non-cash costs. Accrual accounting with its matching principle means that the actual cost will be recognized in the year in which it occurs. It is stated in the Consolidated Financial Statements of the NSW Public Sector 1996-97 that "*expenses are recognized when incurred and are reported in the financial year to which they relate*". In addition, Sacco (1997) argued that in government, matching would be central to calculating intergenerational equity, that is, there are sufficient revenues collected this period to cover all costs, whether actual outlays or promised outlays.

Consequently, the matching principle can be used to allow for the total costs of one period to be charged to the operating statement in the period in which they are incurred and matched with the total revenues (whether levied through the sovereign power or earned through the operations) related to the same period.

The practical approach takes into consideration the specific nature and characteristics of the public sector in comparison with the private sector and it has proposed that the matching of revenues with expenses of a certain fiscal year should be based on a **Timing Relationship** instead of an **Exchange Relationship** (Ouda, 2007). This based on the fact that "governments generally use resources from a variety of sources to pay for a variety of services. The "matching" relationship that normally exists between resources provided and services received is a timing relationship (that is, both occur during the fiscal year) rather than an exchange relationship" (GASB, 1987). This is consistent with Universality Principle of budgeting where all revenues are used to finance all expenditure without allocating revenues to particular items of spending as there is no relationship exists between the revenues and expenditures. So in the context of lacking the direct link between the revenues and expenses, the matching principle can be used in the public sector to show the surplus (or deficit) of revenues over expenses. This is a useful measure of whether a government has managed to meet current expenses from current revenues, and whether its net resource position has increased or decreased. Thus, comparing revenues with total expenses helps in assessing the inter-period/ intergenerational equity (i.e. whether current revenues are sufficient to cover the costs of programs and services provided in the current period).

In reality, the application of matching principle in the public sector based on timing relationship is not only measuring the intergenerational equity but also it assists in fulfilling the intergenerational fairness by charging the costs incurred in production of the usefulness to the period in which this usefulness will be consumed. Bac (2000), stated that "good allocation and sound intergenerationally neutral government financing demands that the cost of government activities will be so divided over time that cost will be attributed to the period in which the usefulness of such activities and the referred assets will be consumed". This means that:

Costs incurred should be -- attributed to -- the period of consumption of the usefulness

In this context, matching principle means that both services and costs incurred in providing those services have to be recognized in the same reporting period in order to assure that current taxpayers are paying for the services that they receive and not pass those costs on to future generations. This assists in ensuring an equitable distribution of expenses between generations and that the long-term position of the government remains sound (Bartos, 2000). So in order to operationalize the Practical Approach (the Timing Relationship), the financial statements of New Zealand government can show how accrual accounting with its matching principle is applied to the public sector. These are: Statement of financial performance (operating statement), Statement of movements in equity and Statement of financial position: for the year ended 30 June 2014 (see the following statements).

Generally, the expenses can be provided in the statement of financial performance in one of two ways (IPSAS 1): ***the first*** is referred to as the nature of expense method. Expenses are aggregated in the statement of financial performance according to their nature (for example depreciation, purchases of materials, transport costs, wages, salaries), and are not reallocated amongst various functions within the entity. ***The second*** is referred to as the functional method of expense classification, classifies expenses according to the programs or purpose for which they were made (for example Health expenses, education expenses, defense expenses, etc.). This presentation often provides more relevant information to the users than the classification of expenses by nature. The statement of financial performance of the New Zealand government uses the classification of expenses by nature; this is in addition to providing the analysis of expenses according functional method. The statement of financial performance of the New Zealand government can show to what extent the New Zealand government has managed to meet current expenses from current revenues and whether the government actions have added to the net worth of the state, and whether the current generation has increased or decreased the worth of what is leaving for the next generation. It is evident from the statement of financial performance of the New Zealand government that the current expenses have been covered by the current revenues and the government has achieved a surplus (positive operating balance) of $ 2.946 Milliard which in turn means that the government actions have improved the net worth of the state and intergenerational equity. Thus, identifying a surplus or deficit each year would over time enable a conclusion to be reached about whether a government is eroding, enhancing or maintaining the net worth.

Statement of Financial Performance as at 30 June 2014

Forecast			Actual	
Budget 2013 $m	**Budget 2014 $m**		**30 June 2014 $m**	**30 June 2013 $m**
		Revenue		
61,773	61,380	Taxation revenue	60,879	58,134
5,296	5,383	Other sovereign revenue	5,450	5,172
67,069	66,763	Total sovereign revenue	66,329	63,306
17,080	16,432	Sales of goods and services	16,472	16,713
3,588	3,160	Interest revenue and dividends	3,175	2,939
3,867	3,622	Other revenue	3,420	3,697
24,535	23,214	Total revenue earned through operations	23,067	23,349
91,604	**89,977**	**Total revenue (excluding gains)**	**89,396**	**86,655**
		Expenses		
23,485	23,394	Transfer payments and subsidies	23,360	22,708
20,172	20,488	Personnel expenses	20,484	19,935
4,640	4,644	Depreciation and amortization	4,872	4,812
37,608	36,527	Other operating expenses	35,553	36,163
4,516	4,461	Interest expenses	4,400	4,358
3,215	3,283	Insurance expenses	3,501	3,031
461	77	Forecast new operating spending	-	-
(600)	(660)	Top-down expense adjustment	-	-
93,497	92,214	Total expenses (excluding losses)	92,170	91,007
(140)	(210)	Minority interests share of operating balance before gains and losses	(159)	(62)
(2,033)	(2,447)	Operating balance before gains and losses (excluding minority interests)	(2,933)	(4,414)
1,748	3,604	Net gains/(losses) on financial instruments	4,820	7,270
443	1,590	Net gains/(losses) on non-financial instruments	540	3,706
2,191	**5,194**	**Total gains/(losses)**	**5,360**	**10,976**
200	259	Net surplus from associates and joint ventures	360	395
-	(33)	Minority interests share of net gains/losses	21	(32)
358	2,973	Operating balance (excluding minority interests)	2,808	6,925
		Operating balance allocated between:		
358	2,973	Operating balance (excluding minority interests)	2,808	6,925
140	243	Minority interests share of operating balance	138	94
498	**3,216**	**Operating balance (including minority interests)**	**2,946**	**7,019**

Statement of Financial Position as at 30 June 2014

Forecast Budget 2013 $m	Forecast Budget 2014 $m		Actual 30 June 2014 $m	Actual 30 June 2013 $m
		Assets		
15,244	11,108	Cash and cash equivalents	11,888	14,924
18,070	17,873	Receivables	17,480	19,883
44,713	47,870	Marketable securities, deposits and derivatives in gain	48,457	44,000
18,176	19,672	Share investments	20,596	17,359
25,312	24,611	Advances	24,756	22,613
1,321	1,158	Inventory	1,099	1,140
2,061	2,267	Other assets	2,510	2,295
112,627	112,264	Property, plant & equipment	116,306	109,833
9,642	10,021	Equity accounted investments	10,071	9,593
2,837	2,841	Intangible assets and goodwill	2,920	2,776
505	13	Forecast for new capital spending	-	-
(330)	(395)	Top-down capital adjustment	-	-
250,178	**249,303**	**Total assets**	**256,083**	**244,416**
		Liabilities		
4,897	5,072	Issued currency	4,964	4,691
12,360	11,952	Payables	11,294	11,160
1,553	1,802	Deferred revenue	1,962	1,714
112,201	103,058	Borrowings	103,419	100,087
35,902	34,900	Insurance liabilities	35,825	37,712
11,766	10,732	Retirement plan liabilities	10,885	11,903
6,317	6,320	Provisions	6,955	7,138
184,996	**173,836**	**Total liabilities**	**175,304**	**174,405**
65,182	**75,467**	**Total assets less total liabilities**	**80,779**	**70,011**
		Net Worth		
6,230	13,344	Taxpayer funds	13,300	10,862
55,831	56,648	Property, plant and equipment revaluation reserve	62,225	57,068
(64)	40	Other reserves	43	141
61,997	70,032	Total net worth attributable to the Crown	75,568	68,071
3,185	5,435	Net worth attributable to minority interests	5,211	1,940
65,182	**75,467**	**Total net worth**	**80,779**	**70,011**

Statement of Changes in Net Worth for the year ended 30 June 2014

498	3,216	Operating Balance		2,808	-	138	2,946
-	(351)	Net revaluations		-	5,386	9	5,395
(59)	(119)	Transfers to/(from) reserves		229	(229)	(2)	(2)
-	(3)	(Gains)/losses transferred to the statement of financial performance		-	(43)	-	(43)
47	3	Other movements		(22)	(55)	2	(75)
486	**2,746**	**Total comprehensive income**		**3,015**	**5,059**	**147**	**8,221**
175	(542)	Gain/(loss) on Government share offers		(577)	-	-	(577)
1,325	3,300	Increase in minority interest from Government share offers		-	-	3,308	3,308
(74)	(48)	Transactions with minority interests		-	-	(184)	(184)
65,182	**75,467**	**Net worth at 30 June 2014**	**28**	**13,300**	**62,268**	**5,211**	**80,779**

Finally, I can conclude that matching principle can generally be applied whether to private or public sector based on following three relationships:

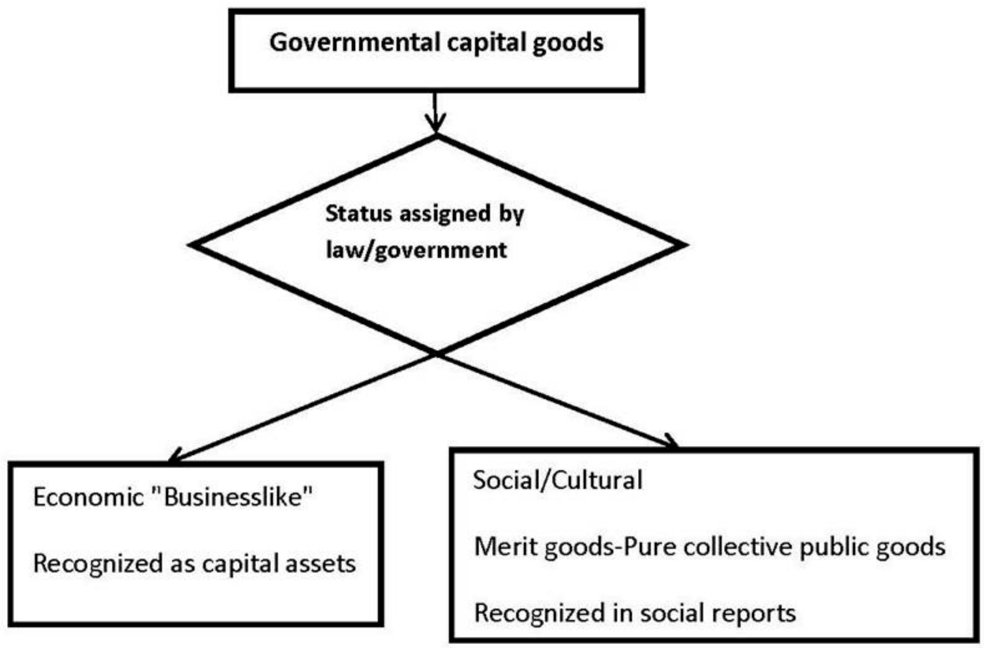
- Exchange Relationship to measure the net income ***(private sector);***
- Efficiency Relationship to measure the efficiency of government in using public resources. The conceptual approach is only right to the extent that the accruals accounts show the resources consumed in providing services. That is, the inputs are matched against the outputs in financial reporting terms ***(public sector);*** and
- Timing Relationship to measure the surplus (or deficit) of revenues over expenses and hence measure the inter-period/ intergenerational equity ***(public sector).***

So for the practitioners in the public sector they can apply matching principle based on timing relationship not to measure the net income but to measure surplus or deficit. If it is surplus then government has enhanced the Net Worth and the current generations are bearing their burdens and supporting the next generations. If it is deficit then the current generations are shifting their burdens to the next generations and the government has eroded the Net Worth.

3.2 Recognition of public capital assets specially Defense Assets an Heritage Assets

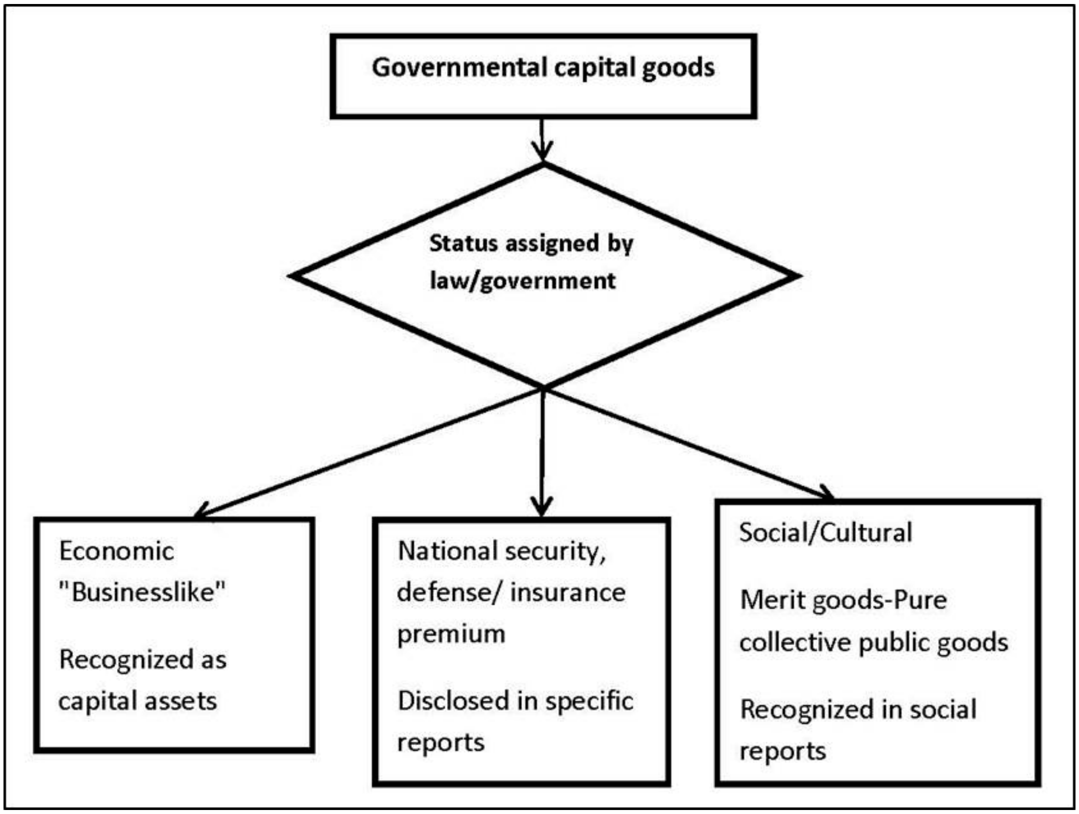
The main focus here will be on specific categories of assets that represent a fundamental departure from a commercial framework and are deemed unique for the public sector and require a specific treatment in financial accounts and hence the practitioners struggle with how to report them in the financial statements (van Peursem, 2009). While the recognition of public sector physical assets in the balance sheet has witnessed an extensive debate in the last three decades, there is a lack of unanimity of accounting treatment of heritage assets and defense assets. In fact, the prior literature in the last 25 years has shown that reporting of heritage assets and defense assets have become a highly problematic issue for the public sector entities holding those assets. Heritage assets are defined as assets with historic, artistic, scientific, technological, geophysical or environmental qualities that are held and maintained principally for their contribution to knowledge and culture and this purpose is central to the objectives of the entity holding them (IFAC –IPSASB, 2006). Heritage assets are considered to be unique assets and they have specific characteristics that discern them from other public assets. IFAC-IPSASB (2006) has determined the following important characteristics of heritage assets for the accounting purposes: a- their value in cultural, environmental, educational and historical terms is unlikely to be fully reflected in a financial value based purely on a market price; b- legal and /or statutory obligations may impose prohibition or severe restrictions on disposal by sale; c - they are often irreplaceable and their value may increase over time even their physical condition deteriorates; and d- it may be difficult to estimate their useful lives, which in some cases could be several hundred years. Whilst there exists an extensive prior literature focused on how heritage assets might be accounted for and whether the heritage assets are sufficiently different to merit different treatment, there is little that addresses the reporting of heritage assets from an alternative, financial and non-financial perspective (Ouda, 2014). The current accounting approaches for heritage assets, which focus on the provision of financial information, are inadequate for ensuring the provision of information useful to the types of decision-making relevant to the needs of stakeholders. Hence, additional forms of information should be provided (Wild, 2013; Pallot, 1990; Carnegie and Wolnizer, 1995; Barton, 1999 & 2005; Hooper and Kearins, 2003; West and Carenie 2010). Furthermore, if heritage assets have no financial value to the governmental entity, then it is misleading to match them against its liabilities. They are not resources, which can be used to generate cash for discharge of liabilities, and their inclusion in a balance sheet is misleading to management and to creditors (Carnegie and Wolnizer, 1995). Moreover, immediate expensing of the heritage assets will lead to the distortion of the statement of financial performance (Stanford, 2005).

Some authors have proposed some approaches for accounting for the public assets. Christiaens et al (2012) have proposed a holistic approach which addresses the recognition of public sector capital assets from a general perspective and argues that the recognition of capital good as asset in the financial statements is not merely related to the physical type of assets involved but to the status they are given by the government or the legislator. The holistic approach suggests that if the capital good is given the status of businesslike assets and used for provision of economic benefits, then the assets should be included on the balance sheet. On the other hand, if the assets are given a social status leading to social benefits rather than economic benefits, then they should not be included on the balance sheet. So the following figure shows the Holistic Approach:



Source: Christiaens et al (2012): Recognition of capital assets from a general perspective

Generally, I can agree with the holistic approach with respect to the status given to the assets whether economic or social. However, there are also certain military/defense assets (such as components of weapons systems and support military missions and vessels held in preservations) that are treated as current expenditure which means that they are excluded from the balance sheet because of national security reasons or because there was no output against which the costs of these items could be matched, this is according to the FASAB in Statement of Federal Financial Accounting Concepts (SFFAS -8, 11). Also Ström (1997) support the exclusion of defense assets from the balance sheet as he concludes that future economic benefits do not occur when defense assets exist. The service potential can also be questioned because defense assets provide more of an "insurance premium" than ongoing service, thus excluding defense assets. Consequently, the holistic approach can be modified to not only include the economic or social/cultural status but also national security/defense status. The national security/defense status requires that defense assets should be excluded from the balance sheet and disclosed in specific reports where the following information can be disclosed: the number of units of defense assets in each category of assets (this could be number of aircraft, etc); the number of units added or withdrawn during the fiscal period; the description of the methods of acquisition and withdrawal; the condition of the defense assets; information on deferred maintenance on defense assets (SFFAS#8, 50,68,80, SFFAS#11, 10).



Modified holistic approach: Recognition of capital assets from a general perspective

In fact, this paper aims at making the government accounting more practice relevant from the practitioner's perspective. Basically, the holistic approach is also aiming to the same objective, as Christiaens et al (2012) argue that a practical consequence of applying the holistic approach is that it offers the possibility to reach clarity and general acceptance on how to deal with all kinds of capital goods in governments when applied in practice"

However, the application of holistic or modified holistic does not resolve the problem from practitioner's perspective because the practitioners will find that the two approaches are not consistent with the assets recognition criteria determined by IPSAS 16 &17. An asset should be recognized in the statement of financial position when and only when:

a- It is probable that future economic benefits or service potential associated with the asset will flow to the entity;
b- The cost or fair value of the asset to the entity can be measured reliably.

According to the assets recognition criteria, capital assets should be recognized in the balance sheet where information on cost or value of the capital assets is available and not-recognized where the information on cost or value is not available. So the question is: if a capital assets given a social/cultural status and on the other hand, the information on cost or value of this asset is available, then should this asset be recognized? In fact, the answer of this question will take two perspectives: from the holistic approach perspective so long as the asset is given a social status, it should not be recognized in the balance sheet but it should be recognized in social reports. From the recognition criteria perspective so long as the information on cost or value of the asset is available, it should be recognized in the balance sheet. This contradictory makes the situation for the practitioners more complicated and on the other hand, makes the governmental accounting not be practice relevant.

Furthermore, another question remains if a capital asset (e.g., heritage assets) is given a social/cultural status and the information about its cost or value is available and this asset appears on the balance sheet, do the financial statements contain misleading information because there is an expectation of the ability to sell/dispose such asset, which is unlikely for heritage assets, or does recognition of the dollar amount of heritage assets add value to the reporting process?

In fact, if the assets is given a social/cultural status (such as: heritage assets) and the information on cost or value is available and there are cultural/social or legal restrictions on the disposal of such assets**,** then the capitalization of heritage assets will be misleading to management, and to creditors because they are not legally accessible by them. This can be supported by what is stated by SAC-4 that where assets and liabilities have been set off against each other, or where revenues and expenses have been netted off, in the presentation of those items in financial statements, those elements would nonetheless have been recognized. This means that the recognition of assets in the financial statements should only include the assets that will be matched against liabilities. Accordingly, inclusion of assets in the balance sheet that will not be matched against liabilities either because there are legal, social or cultural restrictions on their disposal is in reality misleading. Therefore, I can conclude that whatever the status given to the capital assets, the main criteria here is whether or not the assets is matched against liabilities. This can lead to developing new recognition criteria and approach, which I might call ***Practical Holistic Accounting Approach for capital assets***. This approach will be based on the Practical Accounting Approach for Heritage Assets developed by Ouda (2013) and Holistic Approach developed by Christiaens et al (2012). The development of the practical holistic accounting approach will require adding new recognition criteria to the original two recognition criteria stated by IPSAS 16 & 17. Under this approach, the two recognition criteria stated in IPSAS 16 & 17 should be extended to include two more criteria which can be used for deciding on whether or not an asset can be recognized. These are as follows:

c- *There are no legal, cultural/ social and national security/defense restrictions on the disposal of the asset.*

d- Recognized assets should be matched against liabilities to avoid the misleading.

So recognize the public capital goods as assets in the balance sheet where the information is available on the cost or value of assets and these assets can be disposed and be matched against liabilities**.** In addition to the two new criteria, the new approach should include the following three sub-approaches:

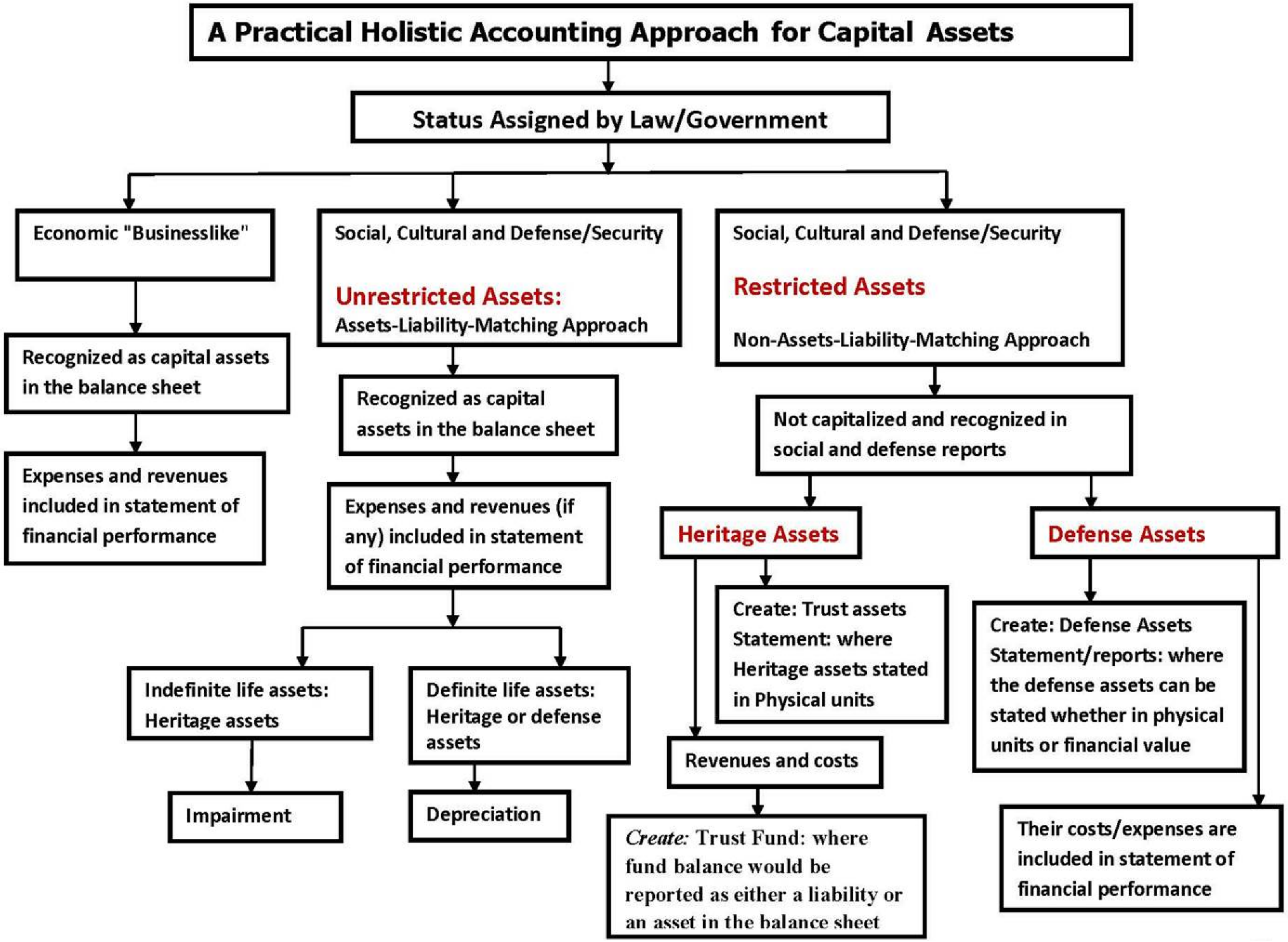
- **Economic Businesslike Assets:** under this approach any capital asset is given the economic businesslike status should be capitalized in the balance sheet (Christiaens et al, 2012). Similar to the businesslike assets, their expenses should be included in the statement of financial performance.

- **Assets-liabilities matching approach - Unrestricted Assets:** Capitalize if the information on cost or value of heritage assets and defense assets is available and heritage assets and defense assets can be disposed, and hence they can be matched against liabilities (Ouda, 2014). Under this approach, heritage assets are considered as legally, culturally and socially unrestricted assets. The information on their cost or value is available and they can be matched against liabilities. Accordingly, they should be capitalized in the balance sheet at current value. An obvious example of heritage assets that can follow this approach in Egypt is the Heritage Presidential Palaces. Due to the financial problems after January 25th Revolution, many of the Egyptians economists argue that these problems can be solved through the disposal of many of the presidential palaces in Egypt, which are not in use. In fact, this option has already been applied in Tunisia in 2012 as a solution for their financial problem after the revolution (Ouda, 2014). In the time of austerity, the heritage assets can be sold to overcome financial problems. This was the case in UK, as the local press reported (November 7, 2012) 'Tower Hamlets Council made the difficult decision to sell the Henry Moore sculpture, Draped Seated (Woman Ellwood and Greenwood, 2014). Similar to the heritage assets, under the assets-liability matching approach the defense assets are legally/national security unrestricted assets and the information on their cost or value is available and they can be matched against liabilities, therefore, they should be capitalized at their current value. With respect to the revenues and expenses of heritage assets should be included in the statement of financial performance and we should differentiate between the indefinite and definite assets as we should calculate impairment for indefinite assets and depreciation for definite assets. Regarding the defense assets their expenses are included in the statement of financial performance.

- **Non-assets-liabilities matching approach – Restricted Assets:** Herein Not-Capitalize if the information on cost or value is not available or available but heritage assets and defense assets cannot be disposed, and hence they cannot be used to be matched against liabilities (Ouda, 2014). According to this approach, heritage assets are considered as legally, culturally and socially restricted assets and defense assets are also considered as legally and national security restricted assets. Therefore, they should not be capitalized in the balance sheet. But both assets are treated differently as follows: Heritage assets are treated as **Agent Assets, Trust Assets, or Custodial Assets.** Accordingly, each country should create an **Agent/Trust Assets Statement** where heritage assets stated in this statement ***in physical units not in financial values*** (Ouda, 2014). The statement of trust assets should include a description of major categories (types), physical units added and withdrawn during the year, a description of the methods of acquisition and withdrawal. In addition, an explanatory note (note disclosure) should supplement the statement of trust assets.

Furthermore, heritage assets held in trust may generate revenues indirectly through ***admission charges*** and incur costs such as restoration and maintenance costs. So in order to account for the revenues and costs related to heritage assets, each county should create a **Trust Fund (Agent Fund)** (Ouda, 2013). This fund will include all the revenues and costs related to heritage assets in a country. The balance of the trust fund would be reported as either a liability or an asset in the balance sheet. If this balance is positive (fund surplus), then it will be considered as an asset and the increasing of the net worth will be called **Heritage Net Worth.** Moreover, if it is negative (fund deficit), then it will be considered as a liability and the decrease in the net worth will be called as **Negative Heritage Net Worth** (Ouda, 2013).

With respect to Defense Assets, each country can create defense assets statement or specific reports and disclose these assets in these statements or reports where the defense assets can either be stated in physical units (number of systems or items) or in financial value. The Disclosure can include the following information: the number of units of defense assets in each category of assets (this could be number of aircraft, etc); the number of units added or withdrawn during the fiscal period; the description of the methods of acquisition and withdrawal; the condition of the defense assets; information on deferred maintenance on defense assets (SFFAS#8, 50, 68, 80, SFFAS#11, 10). In addition their cost will be included in the statement of financial performance.


A Practical Holistic Accounting Approach for Capital Assets
Status Assigned by Law/Government
Economic "Businesslike"
Social, Cultural and Defense/Security
Unrestricted Assets:
Assets-Liability-Matching Approach
Social, Cultural and Defense/Security
Restricted Assets
Non-Assets-Liability-Matching Approach
Recognized as capital assets in the balance sheet
Expenses and revenues included in statement of financial performance
Recognized as capital assets in the balance sheet
Expenses and revenues (if any) included in statement of financial performance
Not capitalized and recognized in social and defense reports
Heritage Assets
Defense Assets
Create: Trust assets Statement: where Heritage assets stated in Physical units
Create: Defense Assets Statement/reports: where the defense assets can be stated whether in physical units or financial value
Indefinite life assets: Heritage assets
Definite life assets: Heritage or defense assets
Revenues and costs
Impairment
Depreciation
Create: Trust Fund: where fund balance would be reported as either a liability or an asset in the balance sheet
Their costs/expenses are included in statement of financial performance

4. Conclusion

While many countries have copied the commercial accrual accounting and applied it to the public sector and some other countries have applied IPSAS, there remain several accrual accounting challenging issues that encounter the practitioners into practice without solutions. These challenging issues may cause troubling to practitioners and represent a fundamental departure from a commercial framework such as: Matching principle; recognition and measurement criteria of capital assets especially for heritage assets and defense assets; recognition of non-exchange revenues; and certain liabilities. This paper has focused only on the matching principle and recognition and measurement criteria. It has attempted to tackle the application of matching principle in the public sector in a way that is understandable by the practitioners and hence it requires reconfiguration for the public sector. Accordingly, the practical approach has proposed that the matching of revenues with expenses of a certain fiscal year should be based on a ***Timing Relationship*** instead of an ***Exchange Relationship*** This based on the fact that "governments generally use resources from a variety of sources to pay for a variety of services. The "matching" relationship that normally exists between resources provided and services received is a timing relationship (that is, both occur during the fiscal year) rather than an exchange relationship". Consequently, the matching principle can be used to allow for the total costs of one period to be charged to the statement of financial performance in the period in which they are incurred and matched with the total revenues (whether levied through the sovereign power or earned through the operations) related to the same period.

In addition, our paper has proposed the Practical Holistic Accounting Approach for capital assets. Under this approach, the two recognition criteria stated in IPSAS 16 & 17 should be extended to include two more criteria which can be used for deciding on whether or not an asset can be recognized. These are as follows:

- *There are no legal, cultural/ social and national security/defense restrictions on the disposal of the asset.*
- *Recognized assets should be matched against liabilities to avoid the misleading.*

In addition to the two new criteria, the new approach should include the following three sub-approaches: Economic businesslike assets; Assets-liabilities-matching approach for the unrestricted assets; and Non-assets-liabilities-matching approach for the restricted assets. Under the practical holistic accounting approach, practitioners recognize the public capital goods as assets in the balance sheet where the information is available on the cost or value of assets and these assets can be disposed and hence be matched against liabilities which in turn leads to avoiding the provision of misleading information to management and creditors. Accordingly, this paper has attempted to assist the practitioners in how to account for different capital assets in governmental entities in a practical way. Therefore, the main message here is that more work needs to be done if the public sector accounting researchers are to claim to have an impact on practice, therefore, they should work together with the practitioners to find practical solutions for outstanding public sector accounting issues and stop to spend their entire career just talking to other accounting researchers about their work through conferences and journals. Otherwise, the practitioners will see accounting research as a pointless exercise unless the research is deemed to be practice relevant. Future research could address the rest of challenging accrual accounting issues, which need to be tackled from the practitioner's perspective such: recognition of non-exchange revenues; and certain liabilities.

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