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GOVERNMENT ACCOUNTING STANDARDS AND POLICIES

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In the public financial management cycle, accounting follows budgeting and precedes auditing to produce financial information useful for understanding and assessing a government's financial conditions. Financial accounting – the branch of government accounting concerned with measuring the financial consequences of actual transactions and events – is regulated by rules to ensure the quality of both the inputs and outputs of the accounts of governments. Some of the rules, called accounting standards, are proposed for adoption by a government as its accounting policies for actual implementation. After some preliminary remarks, this chapter provides a concise guide to government financial accounting standards and policies. Particular reference is made to International Public Sector Accounting Standards (IPSASs), which have become influential as an exemplar of accrual accounting. The chapter also describes the experiences of several countries in introducing accrual accounting. The chapter concludes that accrual accounting is a necessary feature of a credit economy whether in the private or public sector, but it requires certain preconditions be met before it can be successfully implemented. The chapter therefore ends with some recommendations to governments, especially those in developing countries, that are considering transition to accrual accounting.

Government Accounting: A General Framework

This section clarifies the scope and fields in government accounting, and what is meant by government accounting standards and policies, with particular reference to International Public Sector Accounting Standards (IPSASs).

Government Accounting: Scope and Branches

An attempt to define government accounting gives rise to the need to characterize “government” and “accounting”. Accountants tend to view government in terms of the organizations under its control, whereas economic statisticians define government in terms of its non-market functions. The government accounting literature is quite flexible, defining government narrowly as political institutions that make and enforce laws, more broadly to include public service institutions (such as nonprofit health care and educational institutions), and inclusively to cover government-owned business enterprises as well.

Accounting is a financial measurement and communication function that follows budgeting and precedes auditing in the financial management cycle. This definition accommodates the traditional view that accounting is fundamentally a financial calculation and summation activity, as well the recent shift of emphasis to financial reporting. Accounting as practiced by business entities (or “commercial accounting”) has two branches: the internal branch of management accounting covers budgeting, cost analysis and performance evaluation, as well as an external branch of financial accounting to record the consequences of actual transaction and events for reporting to resource providers, especially investors and creditors.

The external and internal dichotomy of government accounting is not quite appropriate in part because in a democracy elected representatives, and sometimes the voters themselves, participate in “management” decisions, such as approving budgets. Government budgeting is too

participatory and powerful to be subsumed under management accounting. Accounting serves budget control and budget accounting – an information system to track authorized spending of public resources – is an integral part of government accounting, and reporting budget execution is a common practice in Western democracies. Financial accounting, imported from the private sector, emerged in the last four decades and is most developed in advanced English-speaking countries with a mature accounting/auditing profession. Since business-oriented financial accounting is not deferential to the rules of government budgeting, the potential exists for misunderstanding and conflict.

In summary, a complete government accounting system consists of (a) a *budget accounting* sub-system to track revenue collections and the use of budgetary resources at the various stages of the spending process; (b) a *financial accounting* sub-system to recognize and measure the consequences of actual transactions and events which affect the government's finances; and (c) a *cost accounting* sub-system to determine the cost of producing public services.ⁱ Government accounting, existing in the overlapping domain of government budgeting and business accounting, draws ideas from these disciplines and practitioners from these professions. It also experiences tensions and conflicts between these two disciplines and professions, particularly with regard to government accounting standards and policies (GASB, 2006).

Government Financial Accounting Rules

The numbers produced by budget accounting or financial accounting are the results of applying certain rules. Since budget rules are almost always defined by a jurisdiction's laws,ⁱⁱ for the sake of consistency, budget accounting rules tend to follow budget practices. However, with its origin in business, financial accounting – after all, it is often called the language of business – is

greatly influenced by the needs of investors and creditors to use year-end financial statements to compare the performance of business firms, which treats their budgets as trade secrets. The concern for credible and comparable financial information led to the development of accounting standards to promote uniformity in accounting practices. The standards – called Generally Accepted Accounting Practices (in the U.K.) or Principles (in the U.S.) – are used by external auditors to evaluate the quality (technically termed “true and fair view” or “fairness”) of financial representations by management. Thus accounting standards are GAAP only if they are developed by sufficiently independent organizations recognized by the national associations of independent auditors (e.g., Certified Public Accountants in the U.S., and Chartered Accountants in some other English-speaking countries).

Over time, despite a number of scandals, GAAP acquired the reputation of being a benchmark of reliable accounting and credible financial reporting, so much so that in the 1970s a bond rating agency required issuers of municipal securities in the U.S. to submit audited financial statements prepared in accordance with GAAP. That action initiated activities in the U.S. to develop GAAP as *standards* for governments and the efforts of American governments to comply with GAAP in the next few decades. In doing so, a government has to adopt its own accounting *policies* to apply those standards to its particular circumstances, while making sure that those policies do not deviate so much from the standards to give rise to the auditor’s objection. In brief, standards are rules for governments, and policies are rules of a government.

The idea that governments, similarly to businesses, should comply with standards set by an independent body was also embraced by other advanced English-speaking countries. In these countries, accounting *by* government has effectively become accounting *for* government, even though other countries have other institutional arrangements (see illustrations in Box 1).

Box 1. Government Accounting Standard Setting and Policy Making

In China, the Budget Law and the Accounting Law provide the legal framework for the Ministry of Finance to promulgate regulations on all aspects of accounting by all entities in the private sector and all levels of government in the public sector. The ministry created and receives advice from the China Accounting Standards Committee, which has a subcommittee on government and nonprofit accounting. The young accounting (auditing) profession plays a minimal role as the National Audit Office performs all audits of public sector entities.

In France, the standard-setting function used to be performed by the General Directorate of Public Finance in the Ministry of Finance until it was moved to the Public Sector Accounting Standards Council (CNOCP) in 2008. This council is independent of the department that prepares the accounts of the state, but is staffed, overseen and financed by the Ministry of Finance. The standards set by the council are adopted by ministerial decrees as the government's accounting policies and are enforced by the Court of Audit.

The evolution and multiplicity of accounting rule-making institutions in the United States provide an opportunity to compare alternative arrangements. The standards set by Financial Accounting Standards Board (FASB) are applicable to business enterprises in both private and public sectors and to private nonprofit organizations. Until the 1980s, only the standards set by the FASB and its predecessors were GAAP. In the public sector, the federal government's fiscal system is separate from those of each of the 50 states and their local governments. In 1991 the Federal Accounting Standards Advisory Board (FASAB) was formed by an agreement between the Treasury and the budget office in the executive branch and the legislative audit office. The board's purview is strictly limited to financial accounting; budget and budget accounting rules are set by laws and administrative regulations. The initial 2/3 majority of government officials on the board was changed to 2/3 public members in order to meet the independence requirement of the American Institute of CPAs for designating FASAB standards as GAAP applicable to the federal government. The Treasury operates three parallel sub-systems: budgeting accounting, cash accounting, and financial accounting based on FASAB standards.

In the sub-national public sector, common interests, conceptual similarities and economies of scale motivated the states to co-sponsor the Governmental Accounting Standards Board (GASB) since 1984 as a sister board to the

FASB under the auspices of a private-sector foundation. The AICPA recognizes GASB standards as GAAP applicable to all American state and local governments. While governments continue to use laws and administrative rules to regulate their own budgeting and budget accounting, most adopt GASB standards for preparing annual financial statements to serve investors in government bonds and the public. In summary, American GAAP as an umbrella term covers separate sets of standards for: the federal government, the state and local sector, and business enterprises.

In Australia, New Zealand and the U.K., the government retains the authority to make accounting policies. However, unlike the American insistence of creating and maintaining a separate self-contained set of rules, government accounting standards in these countries are part of a body of standards covering both the private and public sectors promulgated by a board sponsored by the accounting/auditing profession, outside of government. Furthermore, whereas the American FASAB and GASB traditionally paid little attention to overseas developments and have not attempted to export their standards, these countries' government accounting standards are harmonized with International Financial Reporting Standards (IFRS) set by the London-based International Accounting Standards Board (IASB), and Australia and New Zealand played a leading role in the development of International Public Sector Accounting Standards (IPSAS).

International Public Sector Accounting Standards (IPSAS)

Beginning in the mid-1990s, government accounting – in terms of substantive provisions and institutional arrangements – exemplified by Australia and New Zealand was promoted at the international level (Robb and Newberry, 2007). Building on its decade-long research, the International Federation of Accountants (IFAC) Public Sector Committee (PSC) initiated a program to develop and disseminate International Public Sector Accounting Standards (IPSASs).ⁱⁱⁱ The program has received endorsement and financial support from several international financial and development institutions interested in advancing the cause of better

financial management and greater accountability.^{iv} At the conclusion of the first phase of the program in 2002, the PSC promulgated 20 IPSASs by adapting International Accounting Standards for business enterprises, later renamed International Financial Reporting Standards or IFRS (Sutcliffe, 2003). During the second phase, still on-going since 2002, the PSC and its successor the IPSAS Board have produced six standards on issues unique to the public sector, while continuing to adapt IFRS in other standards. The board also produced one cash-basis IPSAS for governments unready to adopt the accrual-basis IPSASs. Since 2008, the board started a five-year conceptual framework project (IPSAS Board, 2011c) to provide theoretical underpinnings for its work.

The IPSASs published to date (IPSAS Board, 2011a) are listed in the Appendix, along with projects at various stages of completion. As accounting standards and policies tend to be highly technical, numerous and voluminous, the following section provides a summary of their key provisions.

Government Accounting Standards and Policies in Brief

This section outlines the main contents of government financial accounting standards and policies, which have been strongly influenced by the Anglo-American tradition.^v The logical structure underpinning these standards is described in Chan (2008). When they are legally adopted and enforced by auditing, these rules are highly consequential, as they provide an authoritative basis for governments to

- assert ownership, exercise effective control, and protect the economic value of public property;

- ascertain the types, amounts, timing and degree of uncertainty of public debt and other obligations; and
- assess their financial condition and performance.

Accounting Entity

The first step in the financial accounting process is to identify an economic unit regarded as having a separate identity for collecting financial data, namely the *accounting entity*. The primary accounting entity in government is an institutional unit that is capable of owning resources and borrowing in its own name.^{vi} From this point of departure, other accounting entities could be designated: a component (e.g. a department, agency) of government, the whole of government, and a group of governments.

Accounting Equation

The definition of accounting entity implies the *accounting equation*: $\text{assets} = \text{liabilities} + \text{net assets}$. A government's *assets* are the economic resources it owns or effectively controls as a consequence of past acquisitions or events. A government's *liabilities* are its obligations that will require future cash payments or services as consequences of past transactions or events. These definitions incorporate what accountants call *recognition criteria* – the conditions that qualify some resources as assets and some obligations as liabilities.

As Box 2 explains, the static version of the accounting equation, with the stock measures of assets and liabilities, represents financial position at the end of an accounting period. The dynamic version shows flow measures, i.e. changes in assets, liabilities, and therefore changes in net assets, during an accounting period. Revenues, as increases in net assets, result from

increases in assets or decrease in liabilities. Expenses, as decreases in net assets, result from decreases in assets and increases in liabilities. Excess of revenues over expenses is called income in business or surplus in government, and excess of expenses over revenue is called loss in business or deficit in government. Revenues and expenses as flow measures are integrated with the stock measures to form the analytic framework of financial accounting.

Box 2. The Analytic Framework of Financial Accounting

The accounting equation provides the analytic framework of an entity's financial accounting system. The static version of the accounting equation describes the entity's *cumulative* financial position at the end of a period (e.g. fiscal year), and can be expressed in two ways:

$$\text{Assets} = \text{liabilities} + \text{net assets, or}$$

$$\text{Net assets} = \text{Assets} - \text{liabilities}$$

The dynamic version describes changes (denoted by the symbol Δ) during a particular period:

$$\Delta \text{ net assets} = \Delta \text{ assets} - \Delta \text{ liabilities}$$

Therefore ending financial position is beginning financial position updated by changes during the period:

$$\text{Net Assets}_t = \text{Assets}_t - \text{Liabilities}_t$$

$$\Delta \text{ net Assets} = \Delta \text{ assets} - \Delta \text{ liabilities}$$

$$\text{Net Assets}_{t+1} = \text{Assets}_{t+1} - \text{Liabilities}_{t+1}$$

In detail, the change consists of changes in assets and changes in liabilities, which may be grouped as follows:

$$\Delta \text{ net assets} = (\text{increase in assets} + \text{decrease in liabilities})$$

$$- (\text{decrease in assets} + \text{increase in liabilities}), \text{ or}$$

$$\Delta \text{ net assets} = \text{revenues} - \text{expenses} = \text{surplus or deficit.}^1$$

¹ Irwin (2012a) argues that when assets and liabilities are all recognized, deficit could be prevented if it is measured as a decline in net worth, i.e. net assets.

Source: Chan (1998)

Recognizing and Recording the Effects of Transactions

A major function of financial accounting is to show the effects of actual transactions and events on the accounting entity's financial position. This is done by a unique method called *double-entry bookkeeping* often attributed to Luca Paciolo, an Italian monk and mathematician. (Noting the close relationship between double-entry bookkeeping and accrual accounting, Irwin (2012b) credits double-entry with facilitating fiscal transparency.) The method is based on the insight that any exchange has two simultaneous effects on the accounting entity, and should therefore be

recorded twice in the accounts, which elaborate the elements of the accounting equation. For instance, a borrower has more cash but also bears more debt; on the other hand, the lender has less cash but has acquired a claim on the debtor's resources. Chart 1 demonstrates how the double-entry bookkeeping method works in recording a number of typical transactions.^{vii}

Chart 1. Recognizing the Effects of Transactions			
Financial Position and Performance	Accounting Equation		
Financial position at the end of period t	Assets _t	-	Liabilities _t = Net Assets _t
<i>Financing and Investment Transactions</i>			
1. Borrowing	↑		↑
2. Repayment of principal of debt	↓		↓
3. Capital investment financed entirely by debt	↑		↑
<i>Operating Transactions</i>			
1. Revenue	↑		↑
2. Revenue		↓	↑
3. Expense	↓		↓
4. Expense		↑	↓
<i>Non-operating Transactions</i>			
1. Gain	↑ > ↓		↑
2. Loss	↑ < ↓		↓
Financial position at the end of period t+1	Assets _{t+1}	-	Liabilities _{t+1} = Net Assets _{t+1}

Notes on transaction analysis and double entries (A = assets, L = liabilities, NA = net assets):

Financing and investment transactions:

1. Borrowing increases cash, which is offset by an increase in debt, resulting in no change in NA.
2. Repayment of debt principal decreases both A and L, the opposite of Transaction 1.
3. Borrowing and using debt proceeds to acquire capital equipment increase both A and L, resulting in no change in NA. These three cases show that the double-entry method obliges the acknowledgement of additional debt to offset additional resources.

Operating transactions:

1. Tax revenues increase A and NA because the government incurs no financial obligation to repay it.
2. When the government delivers prepaid services (which gave rise to a liability), it can recognize revenue as increase in NA because the liability is eliminated.
3. The use of an asset (i.e. equipment) is an expense, which is a decrease in NA.
4. Incurrence of liability (other than borrowing) in government operations results in an expense, as when an employee works and earns the right to receive retirement benefits.

Non-operating Transactions:

1. When an asset (e.g. a building) is sold for more than its cost, the net increase in assets is a gain, or an increase in NA.
2. When an asset (e.g. a piece of equipment) is sold for less than its cost net of accumulated depreciation, the net decrease in asset is a loss, or a decrease in NA.

Assets and Liabilities

The range of assets and liabilities included in a government financial accounting system is called *measurement focus*. The measurement focus for assets could be as narrow as cash in the treasury or so broad as to include public airwave spectrum for auction to the telecommunication industry. The measurement focus for liabilities could be as narrow as wages in arrears or so broad as to include government insurance coverage and guarantees, such as the billions added during the recent financial crises. Standards and policies on measurement focus therefore could have a decisive influence on the availability of data for demonstrating stewardship for the government's assets and meeting responsibility to discharge financial obligations as they come due. In view of the potentially large number of varieties of assets and liabilities, financial data collection and analysis require their systematic and detailed classification.

Classification. Assets are preferably classified in terms of their nearness of cash. After the recognition criteria are met, economic resources are classified as financial resources, which represent claims to others' resources, and non-financial resources, which are held for use (see left side of Chart 2).^{viii} Financial resources are classified in current and long-term categories, depending on the timing of their intended conversion to cash; conventionally one year is used to distinguish current and non-current categories. Non-financial assets consist of a mixture of tangible and intangible economic resources.

As others' claims against the accounting entity (see right hand of Chart 2), liabilities preferably are classified in terms of the urgency of those claims, again conventionally using one year to separate current and long-term liabilities. These categories of liabilities are further classified according to whom the obligations are owed. Virtually all liabilities are financial obligations in that they will eventually require cash payment; an exception is deferred revenue, which refers to advance payments by customers for goods and services yet to be delivered. Contingent liabilities, e.g. for insurance and guarantees, are separately identified because of their conditional nature, in contrast to the liabilities, which are definite as to amount and timing.

Chart 2. An Illustrative Chart of Accounts for Assets and Liabilities¹	
1 Assets	2 Liabilities
<p><i>11 Current financial resources:</i> Cash and equivalents Financial investments 113 Current receivables 1131 Accounts receivable (from customers) 1132 Loans receivable (from borrowers) 1133 Taxes receivable (from taxpayers) 11331 Property taxes receivable 11332 Income taxes receivable 11333 Sales taxes receivable ... 1134 Grants receivable (from another government) Inventory of goods for sale</p> <p><i>Long-term financial resources:</i> Financial investments Accounts receivable (from customers) Notes receivable (from borrowers)</p> <p><i>Other economic resources:</i> Contract rights to receive goods/services Inventory of goods held for use Land Buildings</p>	<p><i>Current liabilities:</i> Accounts payable (to vendors) Wages payable (to employees) Interest payable (to creditors) Grants payable (to recipients) Claims and judgments (against government) Current portion of long-term liabilities Deferred revenue</p> <p><i>Long-term liabilities:</i> Bonds payable (to investors) Pension benefits payable (to employees)</p> <p><i>Conditional liabilities:</i> Contingent liabilities</p>

Capital equipment	
Intellectual property rights	
Cultural heritage resources	

¹ For examples of revenue and expense classification, see Jacobs, Helis and Bouley (2009). The classification scheme here is preferable because it is useful for determining a government's liquidity and solvency. In contrast to the classification of government expenditures, there is less international uniformity in the classification of government assets and liabilities. The asset and liability classification in the 2001 IMF GFS emphasizes the domestic and foreign distinction in financial assets and liabilities. There are two different approaches to designing charts of accounts for a government financial accounting systems. The French (and more broadly the traditional Continental European) approach emphasizes national uniformity. An important function of accounting standards is to prescribe a comprehensive chart of accounts, as exemplified by the French General Accounting Plan (*plan général comptabilité*).^{ix} The Anglo-American *laissez faire* approach leaves the specification of the chart of accounts to each jurisdiction, rendering statistical compilation a haphazard and arduous task.

Source: The authors.

Measurement. A variety of valuation methods are used to determine the amounts of assets and liabilities. Financial assets are usually stated in terms of their net realizable value, i.e. the amount of cash that could be obtained in the ordinary course of business. Non-financial assets are stated in terms of their original acquisition costs (sometimes called historical cost) adjusted for depreciation. Financial liabilities are usually stated in terms of their contract prices. Present value and actuarial estimates are used in determining the amounts of long-term liabilities.^x

Issues in Asset and Liability Recognition and Measurement. The foregoing statements about asset and liability recognition and measurement attempted to state the relevant general provisions in IPSASs and American government accounting standards. These general provisions are elaborated in scores of standards and hundreds of detailed provisions. The large number of possibilities and alternatives in this literature is evidence of the diversity of views among the government accounting standard setter and policy makers. These issues are being debated in the conceptual framework project of the IPSAS Board mentioned in the Appendix. The board's consultation papers on the conceptual framework have raised issues with virtually every one of

the recognition criteria for assets and liabilities mentioned earlier. Furthermore, historical cost, market value and replacements are also mentioned as possible valuation methods, along with value in use and net selling price. The board hopes to bring closure to the deliberations about these fundamental issues by 2013 so as to provide a firm conceptual foundation for setting consistent standards.^{xi}

Revenues and Expenses

Classification. Government revenues are usually classified by source; major categories include: taxes, fees, and grants. Expenses could be could be classification by object (e.g. wages), economic character (e.g. current vs. capital), and function (e.g. defense, health). The comments made earlier about charts of accounts for classifying assets and liabilities apply to revenues and expenses, although there is greater international uniformity as reflected in the common Classification of Functions of Government (COFOG).

Measurement. As revenues and expenses are traceable to increases in assets and liabilities (see Chart 1), the measurement of revenues and expenses is inextricably related to that of assets and liabilities discussed earlier.^{xii} With this understanding, this section deals with the measurement of revenues and expenses, commonly referred to as the basis of accounting.

If a government accounting system measures only revenues in terms of cash receipts and expenses in terms of cash payments, it uses the *cash basis of accounting*. Debt proceeds from borrowing – borrowed cash – and repayment of debt in cash should, of course, be recorded in the *cash accounting* system. But it would not be proper, in our opinion, to consider debt proceeds as part of total cash receipts, or debt repayment as part of total cash payment, in the accounts or in

the budget, as illustrated in the Cash-basis IPSAS. (See the Recommendations section for additional discussion.)

The opposite of the cash basis is the *accrual basis of accounting* for measuring revenues and expenses, which emphasizes the occurrence of rights and obligations associated with generating revenues and incurring expenses. The full accrual basis has a specific and generally accepted usage in commercial enterprises or operations: a seller has the right to receive payments – the unpaid portion is receivable – from the customer after the seller has delivered goods or services. Advance payments from customers impose on the seller a liability, i.e. the obligation to deliver goods or services. Expenses – assets consumed and liabilities incurred in generating the sales revenue – are matched against the sales revenue to arrive at a net income or loss.

The full accrual basis of revenue recognition based on service delivery to specific recipients is not feasible in taxation and similar non-reciprocal exchanges, sometimes called “non-exchange transactions”. Tax levies are recognized as revenues when the government can assert the right to receive payments from taxpayers. This claim is established by the due date of a tax or upon the occurrence of a taxable transaction.^{xiii} But since a tax levy does not impose the reciprocal obligation on the government to provide services to individual taxpayers, the recognition of tax revenues does not depend on service delivery but on the availability of assets acquired in the taxable event or from the taxable property. Furthermore, expense recognition does not depend on the prior recognition of revenue against which expenses would be matched. Expenses in government are assets used and liabilities incurred during a period.

An Illustration of Accrual Basis vs. Cash Basis. Government interventions during the recent (2008) financial crisis and subsequent economic recession provide an opportunity to contrast the effects of cash basis and accrual basis of accounting. In the United States, for example, these actions including buying mortgage-backed securities (“trouble assets” or “toxic assets”) from financial institutions, making loans and loan guarantees, and purchasing equity share of companies. As indicated by Chart 3, credit and capital transactions are treated quite differently under the cash basis and accrual basis. Cash deficits would increase when a government buys securities, makes loans, and pays for construction projects. In contrast, these transactions would have no impact on accrued deficits as they result in other assets to offset the cash payments. Accrual accounting would recognize contingent liabilities when the government provides loan guarantees or insurance coverage to increase confidence and stabilize finance markets. The cash basis of accounting would ignore such liabilities. Significantly, while accrual deficit numbers normally exceed cash deficit numbers due to the recognition of increased liabilities as expenses (by as much as US\$786 billion during the fiscal year ended October 2010), the cash deficit *exceeded* accrued deficit by US\$163 billion during the 2009 fiscal year when the U.S. Government injected large amounts of liquidity into the financial sector (Chan and Xu, 2012; for further discussion, please refer to the next chapter).

Chart 3. Accounting Treatments of Some Government Actions in Financial and Economic Crises		
	Cash basis	Accrual basis
Financial Transactions ¹	Cash balance Cash deficit = cash receipts – cash outlays	Assets = Liabilities + Net Assets Accrued deficit = Revenues - Expenses
Purchase financial investments	↑cash outlay; ↑cash deficit	↑financial assets; ↓cash; No effect on accrued deficit ¹
Selling financial investments	↑cash receipts; ↓cash deficit	↓financial asset; ↑cash; Gains/(losses) reduce/(increase)

		accrued deficit
Making loans	↑cash outlay; ↑cash deficit	↑financial asset; ↓cash; No effect on accrued deficit
Providing loan guarantees or insurance coverage	No recognition	↑contingent liabilities
Undertaking capital construction projects	↑cash outlay; ↑cash deficit	↑fixed asset; ↓cash; No effect on accrued deficit

¹ The determination of fair market value of some financial assets, e.g. mortgaged-backed securities, under volatile and stressful financial market conditions, was both technically complicated and politically controversial. Furthermore, the recognition of subsequent unrealized holding gains or losses introduces an additional component to the determination of accrual deficit or surplus.

At Issue: How Many Bases of Accounting? The previous section explained how the accrual basis is used in both commercial operations and tax-financed operations of the public sector. Accrual basis for measuring revenues and expenses is one aspect of *accrual accounting*, the other aspect being the broad measurement focus of the balance sheet to encompass all economic resources and long-term and even contingent liabilities. Broad measurement focus **and** accrual basis of accounting therefore are at the core of accrual accounting. Whereas accrual accounting for business enterprises has become unquestioned conventional wisdom, whether it is advisable for government to adopt accrual accounting is a controversial issue. A main reason is that there is not sufficient, let alone conclusive, evidence, to support the various claims of benefits and costs.^{xiv} In this context, this section has a modest objective of clarifying what is meant by the accrual basis, by focusing on the issue of modification to the cash basis and accrual basis.^{xv}

Until 2000, the IFAC Public Sector Committee (PSC) had acknowledged that governments used four bases of accounting: cash basis, modified cash basis, modified accrual basis, and accrual basis, as did the Accounting Standards Committee of the International Organization of Supreme Audit Institutions (INTOSAI). Cash basis is modified to acknowledge very short-term receivables and payables (arrears). The accrual basis is modified because, as explained earlier, it is infeasible to apply the (full) accrual basis. As the PSC (2000, p. 7) stated: “There are multiple

points along the *spectrum* between cash accounting and accrual accounting and considerable diversity in the practices of governments” (emphasis added). For example, the American Governmental Accounting Standards Board (GASB) defines modified accrual as the availability and use of current financial resources. How to characterize the availability and uses of other forms of assets – non-current financial resources, non-financial resources – remains an unresolved issue.^{xvi} In the meantime, the IPSAS decided to set standards on both the cash basis and the accrual basis. This is a curious strategy, because the board put itself in a position of self-contradiction.

In summary, accounting standards provide guidance, which are interpreted by government accounting policies, on the following topics: the accounting entity, the accounting equation as analytic framework, the double-entry bookkeeping technique, identification of transaction and events as data sources, recognition criteria for considering some resources as assets and some obligations as liabilities, measurement focus, and basis of accounting. Accrual accounting has emerged as the leading paradigm for government accounting at the international level.

The Development of Accrual Financial Accounting

A decade ago, Heald (2003, pp. 11-12) announced the arrival of the era of “global revolution in governmental accounting”: “... commercial style accrual accounting is replacing traditional systems of cash accounting.” He also noted: “Although far from universal or uniform, such changes are having an impact in many countries.” At the international level, the major advocates of the accrual accounting in government were a group of English-speaking developed nations – New Zealand, Australia, Canada and the United Kingdom – which pioneered wider reforms of the public sector (sometimes described as the New Public Management) in the 1980s. As

discussions about the requisite conditions, costs and benefits of accrual accounting will likely continue (e.g. Hepworth, 2003; Booth, 2007; Wynne, 2008), it is worthwhile to examine some national experiences, beginning with the United States, where accrual accounting dates at least to the 1950s, and the debates are still continuing not only on setting accrual accounting and financial reporting standards, but also on the budgetary consequences of revealing unfunded liabilities (see Box 3).

Box 3. The Long Road to Accrual in America

Over two centuries ago, Thomas Jefferson, a Founding Father of the United States, already expressed the hope to see “the finances of the Union as clear and intelligible as a merchant’s books”, even though the early 20th century was the starting point of accrual accounting in American government. Reformers of the day were already discussing balance sheets for governments. The Hoover Commission on effective government proposed accrual accounting as early as the 1950s, but real progress was not made until the mid-1970s. The auditing firm Arthur Andersen & Co. volunteered to construct a balance sheet for the U.S. Government as a whole. Encouraged by the American supreme audit institution, the U.S. Treasury kept on improving the prototype consolidated financial statements (CFS) on an accrual basis. The 1990 Chief Financial Officers (CFO) act required major federal departments to prepare CFS with accounting standards which had shifted from financial management rules to accrual accounting standards. Since 1998, the CFSs of the whole U.S. Government were audited. Unfortunately, due to unreliable numbers caused by internal control problems at a few major departments, the auditor has never been able to give an audit opinion. Meanwhile, debates continued on whether entitlement programs such as social security give rise to liabilities. When accrual reached a high degree, it would be harder to come to a consensus. Recently, thanks to the standards developed earlier on credit programs (loans, loan guarantees, and insurance programs), the U.S. Government was able to account for transactions in connection of its actions to stabilize the financial markets and economy.

The mid-1970s also saw the beginning of progress in accrual accounting in American state and local governments. The near-bankruptcy of New York City highlighted the financial and management problems of American cities, which used their own credit to borrow to finance capital investments and operating deficits. The Standard & Poor

rating agency announced its preference for audited financial statements prepared on an accrual basis. These standards led to the recognition and reporting employee pensions and other operating debts incurred to provide services. The recognition of long-term unfunded liabilities made them visible and highlighted their lack of adequate funding in the annual budgets, leading a few State governments to attempt to overrule nation-wide standards.

In sum, the road to accrual is a long one indeed in America.

Source: Chan (2002). The 1802 Jefferson quote was cited by Arthur Andersen & Co. in its 1986 publication entitled “Sound Financial Reporting in the U.S. Government: A Prerequisite to Fiscal Accountability.”

France also took a rather nuanced approach to accrual-basis financial accounting. In the reform initiated after the enactment of the 2001 Constitutional By-law on Budget Acts, a set of accrual-basis financial accounting standards were promulgated by a quasi-independent board, and audited combined financial statements for the central government have been published.

Compared to the U.S., France has been more open to international influences, drawing inspirations for government accounting standards from IPSAS and IFRS as well as domestic laws. Upon closer examination, the French acceptance of the accrual financial accounting has a few important qualifications. First, there was a high regard for the uniqueness of the public sector and for national characteristics. Second, there was a clear distinction between accrual basis financial accounting and cash budget appropriations, with no foreseeable move to accrual budgeting. Third, the transition to accrual was cautious and gradual on the basis of comparing costs and benefits (Vareille and Adhemar, 2004).

According to an unofficial tally,^{xvii} as of September 2008, five countries (Australia, Canada, New Zealand, United Kingdom, United States) were considered to “already apply full accrual

accounting standards and apply accounting standards that are broadly consistent with IPSAS requirements.” Forty-three of other 49 countries listed as being at varying stages of adopting IPSAS are mostly developing nations or countries transitioning to a market economy. However, it is impossible to determine the extent of their acceptance of accrual accounting.

There is a range of opinions regarding the benefits of introducing accrual accounting, especially with regard to developing countries. The IPSAS Board and its institutional supporters view accrual accounting as a good practice to be adopted eventually (e.g. IPSAS Board, 2011; Khan and Mayes, 2009). But because many developing countries do not currently meet the preconditions for successful implementation, such as a robust cash accounting system for financial control (Hepworth, 2003) and a sufficient number of qualified accountants (Andrews, no date), a pragmatic approach was to use the cash-basis IPSAS to guide the transition (IPSAS Board, 2003).^{xviii} Encouraged by financial resources and supported by professional expertise from international development institutions, a number of African countries are currently engaged in the implementation of cash-basis IPSAS (e.g. African Capacity Building Foundation, 2012; Wynne, 2011). In view of the differences in design of Anglo and French accounting systems (Lienert, 2003), the conversions would likely differ in details between the Anglophone and Francophone countries.^{xix}

Not everyone agrees with this dual basis approach. The authors share the view that cash-basis IPSAS and accrual-basis are in “an impossible coexistence” (Pozzoli, 2008). They believe that since all governments are responsible for managing their assets and settling their liabilities, accrual accounting is, at least in principle, a necessity for developed and developing countries alike (Chan, 2006).

Assuring the Quality of Accounting

Developing countries have their share of problems in ensuring the quality of accounting data (Chan, 2006) and the use of appropriate accounting policies. However, these problems are not limited to developing countries. An indicator of quality of accounting is whether the financial statements (detailed in the next chapter) prepared with the accounting data received a unqualified (so-called “clean”) audit opinion. In this regard, the latest (2010 or 2011) financial statements of the national governments of Australia, Canada and New Zealand received unqualified audit opinions. However, since they were first prepared in 2006, the financial statements of France’s central government have received qualified audit opinions. The whole-of-Government Accounts of the U.K. Government for 2010, released 19 months after year-end, also received a qualified audit opinion. The road to accruals in America is not only long (Box 3) but also hazardous. The accounting data have remained so unreliable – suffering from what the auditors called “material weaknesses” – that the supreme audit institution of the U.S. has **gave** given a disclaimer – refusal to render an audit opinion – since the US Government began preparing Consolidated Financial Statements 15 years ago (see Box 4).

Box 4. Accounting Data Problems in the U.S. Government

“While significant progress has been made in improving federal financial management since the federal government began preparing consolidated financial statements 15 years ago, three major impediments continued to prevent us from rendering an opinion on the federal government’s accrual-based consolidated financial statements over this period: (1) serious financial management problems at the DOD [Department of Defense] that have prevented its financial statements from being auditable, (2) the federal government’s inability to adequately account for and reconcile intragovernmental activities and balances between federal agencies, and (3) the federal government’s

ineffective process for preparing the consolidated financial statements. ...

“In addition to the material weaknesses underlying the three aforementioned major impediments, we identified three other material weaknesses; These entail the federal government’s inability to (1) determine the full extent to which improper payments occur and reasonably assure that appropriation actions are taken to reduce improper payments; (2) identify and resolve information security control deficiencies and manage information security risks on an ongoing basis; and (3) effectively manage its tax collection activities....

“The last economic recession and the federal government’s actions to stabilize financial markets and promote economic recovery,..., continued to significantly affect the federal government’s financial condition.... The ultimate cost of the federal government actions ... will not be known for some time as the uncertainties are resolved and further federal government actions are taken in fiscal year 2012 and later....”

Source: Statement of the Comptroller General of the United States on the US Government’s Consolidated Financial Report for the Fiscal Year 2011 ended September 30, 2011, dated December 23, 2011.

Nor are serious accounting problems limited to the United States. Fiscal transparency made possible in part by the publication of financial statements and financial statistics enable other monitors of a government’s finances to find out how accounting rules, especially recognition criteria, are susceptible to artful interpretations to achieve intended effects. Many instances of “creative accounting” come to light, thanks to the transparent reporting practices and the scrutiny of external parties, such as auditors and the European Union’s Statistical Office (EuroStat). Unfortunately, due to their very nature, the real magnitude of the problem may never be known. For example, the Greek Government structured and undertook transactions to come closer to complying with fiscal rules (Sturges, 2010). Economists sometimes lump together both opportunistic fiscal behavior and inappropriate accounting treatments, calling them “accounting stratagem” (see Box 5).

Box 5. Government “Accounting Stratagems”

Governments facing financial difficulties have been found to attempt to appear better fiscally by using “accounting stratagems,” sometimes by means of complex transactions. Recent examples include:

- Greece used currency swaps in 2001 to 2007 to reduce reported debt until questioned by Eurostat.
- France, Portugal, Argentina and Hungary took advantage of actions involving public and private pensions to reduce reported deficits through recognizing revenues, or not recognizing liabilities or expenses.
- The American state of Arizona sold buildings and leased them back immediately to disguise borrowing.
- Private-public partnerships enable governments to defer the reporting of spending, but created substantial obligations, amounting to 2 ¼ percent of GDP in 2010 in the U.K. and 3 ½ percent of GDP in Portugal.
- Underfunding of public employee pensions is another common phenomenon; for example, the U.S. federal government recognized pension expense of \$312 billion in 2010 but paid only \$123 billion in cash on civilian and military pensions.
- Many governments treat privatization receipts as revenue but ignore the loss of future revenue. The sale of real estates also results in one-time revenues and deficit reductions.
- In the 2000, many European governments, including Belgium, Portugal and Greece, securitized the rights to receive future revenues to reduce their reported deficits.
- Some governments, e.g. U.K. and Ireland, arrange to have entities excluded from fiscal accounts to assume liabilities; in the case of Fannie Mae and Freddie Mac, the U.S. Government did not recognize liabilities of these failing financial institutions taken over by the government.

Source: Appendix 2 “Accounting Stratagem”, *IMF Fiscal Monitor*, April, 2011, pp. 73-78.

Conclusion

Traditionally governmental accounting is confined to budget accounting for monitoring the collection of revenue and the spending of appropriations. During the last four decades, the financial accounting for government emerged in response to the demands of the financial community (e.g. investors in government bonds and bond rating agencies) and the general public for greater fiscal accountability and transparency of public institutions. Financial accounting measures the financial consequences of actual transactions and events, and produces financial statements to report these consequences primarily to interested parties outside of government. As credibility and comparability are especially important in external financial reports, the development of standards to regulate government financial accounting gained prominence as well. In the advanced English-speaking countries with a mature accounting/auditing profession, government accounting standards are developed by bodies that are subject to the influence but not control of government, while the government reserves the right to accept, modify or reject them as official accounting policies. This arrangement has been elevated to the international level in the form of the International Public Sector Accounting Standards (IPSAS) Board. The board receives support from a number of important international development and financial institutions, which view IPSASs as a vehicle for promoting government accounting reform in developing countries.

International Public Sector Accounting Standards embody the major features of government financial accounting in the Anglo-American tradition, which considers cash budgeting and cash accounting as necessary but not sufficient. The “revenue minus expenditures equal deficit or surplus” formulation of public finance is replaced by an integrated financial accounting system of stock and flow measures:

$\text{Assets} - \text{liabilities} = \text{net assets at the end of a period, therefore}$

$\Delta \text{ assets} - \Delta \text{ liabilities} = \Delta \text{ net assets}$ during the period, and

$\Delta \text{ net assets} = (\text{revenues} - \text{expenses}) + (\text{gains} - \text{losses})$, or

$\Delta \text{ net assets} = (\text{surplus or deficit}) + (\text{net gain or net loss})$

Accrual accounting standards and policies specify the recognition criteria and measurement methods of the above financial variables. Accrual accounting is a necessary feature of an economy characterized by the extension of credit in both the private sector and public sector – and between these two sectors. Cash accounting is not capable of capturing the result of both explicit borrowing activities (e.g. governments issuing securities) and especially implicit borrowings (e.g. promising to pay employees retirement benefits decades later). Furthermore, cash, though a critical asset, is not the only resource owned or controlled by most governments; there are buildings and equipment used in providing services, infrastructures and natural resources, for example. On the other hand, governments owe financial obligations not only to bondholders but to others as well, such as the poor that receive welfare payments mandated by law. Accrual-basis accounting standards and policies direct government accountants to draw lines that define assets and liabilities, and instruct them how to measure their amounts at the end of a year, and changes during the year.

Implementation of the financial accounting standards and policies outlined in this chapter would provide the data needed to produce a suite of logically connected financial statements:

- a statement of assets and liabilities, also called a *balance sheet*, portrays the entity's financial position at the end of each period;

- A statement of flow measures that describe financial performance – revenues, expenses, gains and losses – bridges the beginning and ending financial position, thereby explains why net assets increased or decreased during the period;
- In deference to the critical importance of liquidity, a *statement of cash flows* reports not only inflows and outflow of cash but also the amounts of cash at the beginning and the end of the period.

Disclosures other than financial statements are provided in the financial report to present unrecognized but significant financial events as well as other information management deems relevant. These outputs of the financial reporting process are described in the next chapter.

Recommendations on Transition to Accrual Accounting

There is no contradiction in emphasizing both accrual accounting and cash: accrual accounting includes – but is not limited to – accounting for cash. A top priority of any government accounting system is effective cash control and accurate and timely cash accounting. This can be achieved by implementing the most important requirement of the cash-basis IPSAS, that a government should account for all its receipts and payments so that it knows its cash position on a timely basis. One might question the merit of the requirement that a government entity's statement of cash receipts and payments must be on a consolidated basis, i.e. eliminating the effects of all internal transactions. However, the process of gathering cash information of all the controlled entities is itself a useful exercise of internal control.

While the merits and costs of accrual accounting can certainly be debated, we suggest that such debates not be used as a reason for delaying efforts to better understand and measure a

government's assets and liabilities. A chart of accounts similar to that illustrated in Chart 2 could be used to collect and classify assets and liabilities. Accounting standards boards in the Anglo-American tradition do not prescribe uniform charts of accounts, leaving them to the discretion of individual governments. This gives rise to problems of non-comparability within a nation and internationally as well. The authors recommend that the account classifications used by the International Monetary Fund (IMF) to compile Government Finance Statistics (GFS) be used as a point of departure, even though it is recognized that there are a number of differences between financial accounting and statistical reporting systems (more on this topic in the next chapter).

A major feature of the Anglo-American tradition of government accounting is the establishment of a permanent body to continuously promulgate new and revised standards for formal adoption by government as policies.^{xx} This feature is espoused by the institutional structure for setting IPSAS. With the encouragement and in some cases financial support provided by international organizations, governments in an increasing number of developing countries are considering or are adopting accrual-basis IPSASs. Thanks to the continuing efforts of the IPSAS Board, these governments need not set standards *de novo*, but face the task of assessing the acceptability of IPSASs as a whole and individually, for possible adoption as their own accounting policies.

With respect to potential adoption of IPSAS, it is recommended that:

1. A national board be created or an existing board be charged with task of analyzing and assessing the acceptability of IPSAS; such a board should collectively possess the expertise and authority to carry out its decisions, especially if the decision is to actually implement the accepted standards as the government's accounting policies.

2. The board deliberate the relative importance of purposes of the government's accounting system and determine the extent to which these purposes are fulfilled by the existing system. These purposes may include: legal and budgetary compliance, support of financial management operations, support of fiscal policy formulation and fiscal condition evaluation, and demonstrating public accountability by providing financial information, especially after the end of a fiscal year. Such a deliberation would put in perspective the IPSAS, which confines its scope to financial reporting to potential users who lack the power to demand information from government (see Appendix for a list of current IPSASs and next chapter on details regarding financial reporting).
3. The board and its institutional stakeholders – ministry of finance, budget office, audit office, line departments, accounting/auditing professional, financial community with investments in government securities – secure the necessary political, financial and human resource support for continuing monitoring and possible adoption of IPSAS, if the public accountability is ranked sufficiently high.

Once a decision is made to implement accrual accounting, obtaining the beginning balances of assets and liabilities is probably the most challenging task facing any government contemplating the implementation of accrual accounting. For this reason the IPSAS Board has a project to address the issues facing first-time adopters of accrual-basis IPSAS. The authors suggest that implementation proceed in stages. The three stages in Chart 5 are systematic steps to gradually move along what the PSC called the “spectrum” toward stronger degrees of accrual.^{xxi} The data collected and the experience gained at each successive stage build the foundation for the next stage where greater recognition and measurement problems can be anticipated. Another advantage of this gradual and symmetrical approach (Chan, 2003) – dealing with assets *and*

liabilities at the same stage – is that useful information about financial conditions is generated each step along the way. Financial indicators and ratios gauging liquidity, solvency and viability could be constructed by comparing the assets and liabilities measured at each stage. The ability to demonstrate the payoff of investment in data collection is essential for winning support – both political and financial – for sustainable government accounting reform.

Chart 5. Assets and Liabilities	
Assets (A) and Liabilities (L)	Financial Condition¹
Stage I A: current financial resources (CFR) L: current liabilities (CL)	Liquidity could be measured by $(CFR - CL)$ or CFR/CL . CFR is conventionally defined as convertible into cash within one year, and CL as requiring cash also within one year, even though shorter periods may be called for in emergency situations, such as a financial crisis.
Stage II A: current and long-term financial resources (FR) L: current and long-term liabilities (FL)	Solvency could be measured by $(FR - FL)$ or by (FR/FL) , where FR stands for all financial resources and FL for financial liabilities, regardless of timing.
Stage III A: All financial resources and certain non-financial resources L: All liabilities	Viability could be measured by $(A - L)$ or A/L , in recognition that, under normal circumstances, capital assets are held for use not for conversion to cash.

¹ The concepts and indicators or ratios are for illustrative purposes only. For fuller and alternative treatments, refer to: (1) The Canadian Institute of Chartered Accountants, 1997, *Indicators of Government Financial Condition* (Toronto: CICA); (2) Dean Michael Mead, 2001, *An Analyst's Guide to Government Financial Statements* (Norwalk, CT: GASB).

The ability to make double-entry financial analysis of transactions and events in the manner illustrated in Chart 1 is a pre-condition for accumulating and summarizing data in an accrual-basis financial accounting system. Even though professional accountants are trained to make such analyses, it could represent an intellectual challenge for others. An accounting manual should be prepared or be requested from the system or software designer. Such a manual should

show how accounting standards and policies adopted by the government should be applied to its transactions and events. The applications should be explained and likely scenarios be illustrated by sample entries in the accounts. Only after the recognition and measurement decisions are made – by human beings – could computers be programmed, i.e. software packages written to process large volumes of data electronically, in accordance with established accounting policies and procedures. Training a group of highly competent analysts capable of making accounting recognition and measurement decisions is a crucial step in implementing accrual-based financial accounting standards and policies.^{xxii}

The collective experiences of the advanced English-speaking countries is that government accounting standard-setting and policy-making activities have evolved into a time-consuming, highly complex, and participatory process involving players from the public and private sectors. While the benefits may be many – greater fiscal accountability and transparency among them – the cost of more and better accounting, however, should not be overlooked. The authors therefore recommend that the global financial management community – including development and financial institutions such as the IMF, World Bank, UNDP, regional development banks, donor organizations, professional organizations – consider what activities should be undertaken globally, regionally and nationally in order to improve their efficiency and effectiveness.^{xxiii}

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Appendix IPSAS and Related Materials

Financial Reporting Under the Cash Basis of Accounting

Accrual-basis International Public Sector Accounting Standards

- No. 1 Presentation of financial statements
- No. 2 Cash flow statements
- No. 3 Accounting policies, changes in accounting estimates and errors
- No. 4 The effects of changes in foreign currency exchange rates
- No. 5 Borrowing costs
- No. 6 Consolidated financial statements and accounting for controlled entities
- No. 7 Investments in associates
- No. 8 Interest in joint ventures
- No. 9 Revenue from exchange transactions
- No. 10 Financial reporting in hyperinflationary economies
- No. 11 Construction contracts
- No. 12 Inventories
- No. 13 Leases
- No. 14 Events after the reporting date
- No. 15 Financial instruments
- No. 16 Investment property
- No. 17 Property, plant, and equipment
- No. 19 Provisions, contingent liabilities and contingent assets
- No. 18 Segment reporting
- No. 20 Related party disclosures
- No. 21 **Impairment of non-cash-generating assets**
- **No. 22 Disclosure of information about the general government sector**
- **No. 23 Revenue from non-exchange transactions (taxes and transfers)**
- **No. 24 Presentation of budget information in financial statements**
- No. 25 Employee benefits
- No. 26 Impairment of cash-generating assets
- No. 27 Agriculture
- No. 28 Financial instruments: presentation
- No. 29 Financial instruments: recognition and measurement
- No. 30 Financial instruments: disclosures
- No. 31 Intangible assets
- No. 32 **Service concession arrangements: grantor**

Projects in progress

- **Reporting on the long-term sustainability of a public sector entity's finances (ED 46)**
- Financial statement discussion and analysis
- Entity combinations
- **Social benefits**
- **Alignment of IPSASs and public sector statistical reporting guidance**
- **First-time Adoption of IPSASs**
- **Heritage assets**

The IPSAS Board's conceptual framework project, due to complete in 2013, focuses on presentation in general purpose financial reports by public sector entities. The project has produced the following documents (status as of end of February in parenthesis):

- Key characteristics of the public sector with potential implications for financial reporting (exposure draft)
- Phase 1 Role, authority and scope; objectives and users; qualitative characteristics; and reporting entity (exposure draft)
- Phase 2 Elements and recognition in financial statements (consultation paper), and
- Phase 3 Measurements of assets and liabilities in financial statements (consultation paper)
- Phase 4 Presentation in general purpose financial reports (consultation paper)

Notes

ⁱ In financial accounting, cost refers to the amount paid or to be paid for a good or service. It is termed the original acquisition cost or historical cost.

ⁱⁱ It is recognized, of course, that national budget laws may be affected by external requirements, such as fiscal rules of the European Union for its member states.

ⁱⁱⁱ IPSASs do not cover state-owned business enterprises, which follow commercial accounting standards.

^{iv} These institutions include the World Bank, the International Monetary Fund, the UN Development Program, Organization for Economic Cooperation and Development, and the Asian Development Bank.

^v This section draws mainly on the standards promulgated by the International Public Sector Accounting Standards (IPSAS) Board (2011a), which are influenced by the practices of advanced English-speaking countries. Since the pronouncements of the American Federal Accounting Standards Advisory Board (FASAB, 2012) and Governmental Accounting Standards Board (GASB, 2010) are self-contained, they give a better idea about the scope and contents of government accounting standards. Up to the end of 2011, these three boards have produced a total of 137 standards (32 by IPSAS Board, 41 by FASAB and 64 by GASB). It is therefore impossible to itemize them. Rather, this section attempts to convey the essence of what may be called the Anglo-American school of government accounting.

^{vi} An institutional unit is “an economic entity that is capable, in its own right, of owning assets, incurring liabilities, and engaging in economic activities and in transactions with other entities,” according to the *Government Finance Statistics Manual* (2001, p. 8).

^{vii} Up and down arrows are used to avoid having to record debits and credits – left and right sides of a “T” accounts. Interested readers may consult any beginning financial accounting textbooks.

^{viii} Cash is a claim to the banks that issue the currency. Inventory of goods held for sale is classified as financial resources because the intent is to convert them into cash eventually. The definition of use is quite broad, including preservation, for example, of cultural heritage assets.

^{ix} See chapter by Lande and Scheid (2003) in Lueder and Jones (2003) for an illustration of the French uniform chart of accounts of ten classes, which, however, do not show a proper hierarchical organization of assets and liabilities.

^x The general statements in this paragraph have to be seen in the context of the debates described in the next section.

^{xi} Original sources of standards listed in the references should be consulted if the reader needs more specific and detailed information. The consultation papers are available at <http://www.ifac.org/public-sector/projects/public-sector-conceptual-framework>, accessed on 22nd February, 2012.

^{xii} This point is not adequately appreciated in public budgeting, which focuses on revenues and expenditures without inquiring into the underlying assets and liabilities.

^{xiii} This general principle is elaborated by IPSAS No. 23 as well as GASB Standard No. 33 for taxes with different assessment and collection processes.

^{xiv} For a sampling of opinions, refer to IPSAS Study No. 14 (updated 2011) for arguments in favor of accrual accounting, and Wynne (2008) for arguments against, and Boothe (2007) for a reasonably balanced treatment.

^{xv} The IPSAS Board (2010b, p. 3) states that under the accrual basis of accounting, “transactions and other events are recognized in financial statements when they occur (and not only when cash or its equivalent is received or paid). Therefore, the transactions and events are recorded in the accounting records and recognized in the financial statements of the periods to which they relate.” We wish to point out that financial consequences of the transactions and events in terms of changes to the entity’s assets and liabilities are recognized, measured and then entered into the accounts and subsequently reported in financial statements.

^{xvi} In an attempt to help resolve this issue, Chan (1998) proposed the concept of degrees of accrual – mild, moderate and strong – to formally describe the multiple points along the spectrum. Instead, the PSC (2000, p. 7) found it “more appropriate to focus on setting standards for the cash and accrual bases” and would “develop and promulgate additional guidance for governments to assist in the transition between these two points,” which the IPSAS has done (IPSAS, 2011b).

^{xvii} The unofficial list of “IPSAS Adoption by Government” (September 2008) is available on the Internet at http://www.ifac.org/sites/default/files/downloads/IPSASB_Adoption_Governments.pdf. The Euro-CIGAR Study (Lueder and Jones, 2003) documents the pattern of accrual accounting in 9 European countries and the European Commission. A recent survey of 19 European jurisdictions found a majority in favor of accrual accounting but also concerns about the cost of conversion and a lack of aware of IPSAS (see <http://www.arps.be/EYBE/arps2.nsf>.)

^{xviii} The board could have encouraged good *cash accounting* without labeling the recommendation a “Cash Basis IPSAS”.

^{xix} The authors have benefitted from the information and comments by Messrs. Dominique Boley, Ato Ghartey, Ian Lienert and Andy Wynne, who are however not responsible for the views expressed here.

^{xx} Detailed designs for such bodies vary: it could be large or small, full-time or part-time or a combination of both; it could be situated within or outside of a government; its membership could have various proportions of official and public members; and its standards could apply to one government or a sector (e.g. local governments).

^{xxi} The concept of “degrees of accrual” was proposed in Chan (1998) to clarify, not to oppose, the transition from modified cash to modified accrual in order to reach what is called *the* accrual basis. American experiences in accrual accounting (see Box 1) have shown how illusive the accrual basis is as debates continue over four decades on whether to recognize and how to measure certain assets and liabilities. It is noteworthy that at the international level, the IPSAS Board felt the need to revisit many of the conceptual issues tackled by, at least, the American government accounting standards boards since at least the 1970s.

^{xxii} An example is an accounting manual with illustrative entries for different scenarios is the Standard General Ledger of the U.S. Government; see <http://www.fms.treas.gov/usagl/index.html> accessed on February 20, 2012.

^{xxiii} This might be considered as another assessment under the Public Expenditure and Financial Accountability program, similar to the one described in Allen, Schiavo-Campo and Garrity, 2004. It is noteworthy that the interest and concern about IPSAS are not limited to developing countries. The statistical office of the European Union in February 2012 initiated a public consultation on the assessment of suitability of IPSAS to EU member states.