Gading Business and Management Journal *Vol. 9 No. 2, 49-65, 2005*

The Major Impacts of Change from Cash to Accrual Accounting in the Public Sectors

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ABSTRACT

Accrual accounting is seen as a solution to the problem faced by the traditional cash based accounting. This paper begins by describing cash based accounting and looks at its drawbacks that lead to the need for change. Then it explains the nature of accrual accounting and rationalises how accrual accounting system will benefit the public sectors. The paper continues further to review the implementation of accrual accounting in New Zealand and Australia as leading proponents of the adoption. The key issue of this paper is to review the major impacts of a change from cash to accrual accounting in the public sectors. The content of this discussion is based on various comments and views from various authors mostly from the countries that have been involved or will be involved in accrual accounting. The impacts are viewed from various angle such as the impact on financial reporting – presentation of balance sheet and problems associated, accounting profession, standard setting bodies, organisational culture – staff training and resistant, the need for efficient information system to support the system, the need for assets register to allow for recognition of assets. The paper looks at whether the advantages of accrual accounting can be realised by public sector accounting. The finding is that the change from cash to accrual accounting in the public sectors did have impacts on various parts as discussed in the paper. Some of the impacts give positive influences and some do not. But the presentation of this paper is not to deny

ISSN 0128-5599

the superiority of accrual accounting but hopefully be an eye-opener of the barriers associated so that any countries interested in the implementation of accrual accounting such as Malaysia will be aware and well prepared of such impacts. Nonetheless, the barriers, if overcome, can position countries in high standards.

Keywords: *Accrual accounting, public sectors, benefits, drawbacks.*

Introduction

Accrual accounting is a concept, which is quite synonym with private sector organisations or commercial businesses. The concept has been used for the purpose of external financial reporting as well as the calculation of business profit. However, its popularity among public sector organisations in most countries is not that similar to private sectors.

Traditionally, governments in most countries apply mainly the cash based accounting for their public sector organisations, where it is concerned only with transactions that involve movements of cash. Transactions are recorded in the accounts as when cash are received or payments are made. No recognition of revenue takes place if it is earned but not yet received or expenses incurred but no yet paid.

However, over the past few years, there has been a significant trend of interest towards implementation of accrual accounting in public sectors. New Zealand and the governments of various Australian jurisdictions stand out as leading proponents of the adoption of accrual accounting. Several other nations have discussed the reforms (CE 1995; and EUCO 1995), but not many have attempted to actually enact the reforms.

Appendices I, II, III and IV provide an overview of the application of accrual based accounting in most countries as presented in the Twenty-third Annual Meeting of Organisation for Economic Co-operation and Development (OECD) Senior Budget Officials in Washington D.C on 3rd and 4th June 2002.

Cash Based Accounting

Definition

Cash accounting records the cash receipts, payments and balances at the time cash is exchanged. Hence, cash accounting financial statement has traditionally shown that sources of cash receipts, the allocation of cash expenditure and comparison of actual against budgeted expenditures. Guthrie (1998)

Drawbacks

Under cash accounting, liabilities are not recorded when they are incurred but only taken into accounts when payments are made. Therefore, current level of liabilities cannot be monitored, as they should be.

On the other hand, the government might received incomes related to future periods (in advance). These incomes which are not yet earned (since services are not provided yet) may be anticipated and a misleading picture of the Government's financial position may be presented to the public.

Sometimes, it is not sufficient to make management decisions based on cash accounts alone. Then, in order to support the process modification might be necessary. To do that, it will involve additional costs which can result in duplication of work and misappropriation of work force.

Cash based accounting disregards cash balance at the end of budgetary period and it cannot be carried forward to the next period. Therefore, to avoid budget cut for the next period, department may rush to spend their budget before the end of the financial year. This can lead to unnecessary spending.

Accrual Accounting

Definition

It is a technique of recognising revenues and expenses of a business over a particular accounting period for the purpose of determining profit. Only those expenses which have been accrued in certain fiscal period are matched with the revenues accrued for the same period, in order to arrive at the profit figures of a business (Samidi 1991).

Accrual accounting attempts to record the financial effects on an enterprise of transactions and other events and circumstances that have cash consequences for the enterprise in the periods in which those transactions, events and circumstances occur, rather than only in the periods, in which, cash is received or paid by the enterprise (FASB: Statement of Financial Accounting Concepts 1).

Accrual accounting is based not only on cash transactions but also on credit transactions, barter exchanges, changes in prices, changes in form of assets or liabilities and other transactions, events and circumstances that have cash consequences for an enterprise but involve no noncurrent cash movement (FASB: Statement of Financial Accounting Concepts 1).

Rationale for Applying Accruals Accounting

The accrual basis is the superior method of accounting for economic resources of any organisation. It results in accounting measurements based on the substance of transactions and events, rather than merely when cash is received and disbursed, and thus, enhances their relevance, neutrality, timeliness, completeness and comparability (National Council on Government Accounting (NCGA) USA).

Accrual accounting offers the benefits of improved accountability and improved resource management (Funnell & Cooper 1998: 3; Ranby 1997: 9). It will enhance accountability since the true cost of government spending is conveyed in a more transparent manner. Cash system is unable to provide adequate information for the full costing of operation (Management Advisory Board (1997) as cited in Hoque & Moll (2001) as compared to accrual accounting that provides information on the full cost of operations and the resources used to deliver service to the public (Funnell & Cooper 1998: 3; Webster 1998: 13).

It provides the best measures of sustainability and 'intergenerational equity' implications of fiscal policy. The traditional version of the intergenerational equity concept is based upon the 'golden rule' that taxpayers in each time period should finance all current expenditure and should make a contribution to the financing of inherited productive assets commensurate with the benefits they receive from those assets. (Musgrave & Musgrave (1973) as cited in Robinson 1998: 11)

It is associated with government's decisions to induce efficiencies into public institutions. Profit figure computed on accrual basis becomes a measure of an enterprise performance and it has been the motivating factor in determining the efficient utilisation of economic resources (Samidi 1991).

Implementation of Accrual Accounting

Miah (1991) as described in Hay (1992) has outlined a number of changes required for the reformation of New Zealand's public sector accounting:

- More external reporting is now required. Government entities have to publish annual plans, setting out objectives for the year. Local authorities have to provide a draft of annual plan and must be open for public submissions. Government departments must publish audited half-year reports in addition to annual plans and annual reports. It focuses on a published annual plan and subsequent adoption of a revised plan and budget.
- All assets are required to be reported, using accrual accounting, in the statement of financial position i.e. balance sheet.

As stated by Guthrie (1998), the accounting profession and various governments in the Australian Public Sector (APS) have promoted a vision of accrual accounting for public sector which includes the following categories:

- Accrual financial reporting (AFR)
  Provides more comprehensive information than the one provided by traditional cash accounting systems. For example, at the Commonwealth level, the accrual-based financial statements for departments now comprise of:

  i. Operating Statement
  ii. Program Statement
  iii. Statement of Assets and Liabilities
  iv. Statement of Cash Flows
  v. Statement of Transactions by Funds
  vi. Additional Accounting Notes and Disclosures
  vii. Certificate of Chief Executive and The Auditor-General

- Accrual management systems (AMS)
  Involves the internal information systems needed to create and record information about revenues, expenses, assets and liabilities.

- Whole of government reporting (WGR)
  Provides an overall view of financial position of the government through consolidation of the financial statements and transactions of all entities controlled by the jurisdiction's government.

- Accrual budgeting (AB)
  Includes costs such as depreciation and accrued employee entitlements in the annual budget which will emphasis on the resource allocation on the basis of an accrual number not based on appropriations of cash by parliaments.

The importance of these changes is that to bring the accounting requirements for public sector entities closer to those that apply in the private sector (Hay 1992) as well as benefiting from such requirements.

Major Impacts of a Change from Cash to Accrual Accounting in the Public Sectors

Presentation Balance Sheet

To gain the benefit of applying accrual accounting, presentation of balance sheet as a statement showing a financial position of the enterprise is necessary.

Churchill (1992) outlines the advantages of introducing balance sheet presentation which include:

i. An understanding of the total asset base managed by the organisation.
ii. Evaluation of the organisation's level of funding and its mix of debt versus equity or quasi equity.
iii. Evaluation of working capital management.
iv. Allocation of accountability for specific assets and liabilities.

To achieve a successful presentation of the balance sheet some definitions and recognition criteria of assets and liabilities are needed. This is necessary since the government has certain types of assets and liabilities that do not exist in the private sector such as heritage assets (museums, monuments), military assets, infrastructure assets and social insurance program.

Assets Valuation

International Public Sector Accounting Standards – IPSAS 1: Presentation of Financial Statements, defines assets as "resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity". Thus, assets are recognised when:

i. they meet all elements of the definition;
ii. it is probable that future economic benefits or service potential will flow to the entity;
iii. the asset has a cost or value that can be measured reliably.

Private sector can be used as a ground to provide a general guidance in recognising assets. Difficulties will arise when there is a need to consider the assets that are exclusive to government entities.

Heritage Assets

In defining assts, there are nature of assets that need to be considered:

i. Have very long life cycles – hundreds of years
ii. More likely to increase in value over time
iii. Seldom diminish over time due to wear and tear
iv. Normally without acquisition costs, if exists, it is already long passed scrap value
v. It is not marketable and it is prohibited by law. Therefore, replacement value is not accessible.

Defining heritage assets is not an easy task and will be more complicated if it has dual uses, for example, being used as administration offices. Contents of museums and galleries require another considerations.

IPSAS 17: Property, Plant and Equipment do not require heritage assets to be recognised but where an entity does recognise heritage assets it is not required to apply the measurement requirements of IPSAS 17. However, where an entity recognises and measures heritage assets, it is required to make disclosures in accordance with IPSAS 17.

Biological Assets

Agricultural products are excluded from the scope of IPSAS 12: Inventories and natural increases in agricultural products are excluded from the scope of IPSAS 9: Revenue from Exchange Transactions. One source of authoritative guidance in International Accounting Standard IAS 41: Agriculture (IASC December 2000) but The Public Sector Committee (PSC) has not yet addressed its application.

The bottom line is, if too many assets are subjected to exclusion, then, the idea of applying accrual accounting to provide comprehensive information relevant for assessing accountability is questionable.

Military Assets

The possibility of premature destruction and difficulty in estimating the timing of when it might occur, give rise to a problem on whether should what be capitalised and depreciated. The United States government differentiates between the military's general-purpose assets (such as transports) and its military specific assets (such as jet fighters) and the latter are not capitalised and depreciated; they are expensed. Other countries generally view that all military equipment should be capitalised and depreciated. Thus, if it is destroyed they need to be written off as an extraordinary item.

There are problems which are associated to military assets, namely:

i. defining what exactly constitutes a military asset
ii. secrecy of in-house development of new military systems prevents research to be capitalised.
iii. opportunity cost related to exclusive use of parts of spectrum for its communications, and its use of exclusive airspace as these would have a great commercial value.

Infrastructure Assets

This involves assets which incurred high cost to build and have extremely long useful lives such as highways and other network assets. Problems associated with infrastructure assets are:

i. deciding the appropriate depreciation schedule,
ii. treating the original investments accordingly and maintenance expenditures,
iii. estimating the original acquisition costs if historic cost method is being used, and
iv. selecting the best suitable valuation methods.

Infrastructure assets are to be re-valued every five years except where more frequent valuations are necessary to comply with IPSAS 17. Each component of an infrastructure asset with a materially different useful life from other components is accounted for as a separate asset and depreciated over the useful life. Where the initial cost of construction is not known, a proxy, such as depreciated replacement cost, is to be used.

Due to the above mentioned difficulties, the impacts of the transformation from cash to accruals are growing and affect a much more wider areas.

Standard Setters and Professional Bodies

Some proponents of public sector accounting changes object to the wholesale adoption of private sector practices in the public sector essentially on the premise that the public sector has a different orientation from the private sector (Churchill 1992).

Due to the distinctive criteria of the above assets there is definitely a need for accounting standard committee to get together and derive to a conclusion on how to solve the matter. Without a proper standard or guideline to follow, it then allows departments to apply various treatments that deal with subjective matters.

Apart from implementing new standards, existing standards or framework must be reviewed on regular basis to prevent rigidity or conflicts if it appears to be any new assets, since government in most countries are progressively improving and developing their countries.

Development of Assets Register

Assets register has to be developed to provide sufficient information in order to recognise assets as part of the balance sheet. The development of the asset register involves various procedures such as:

i. collection of data
ii. application of recognition criteria
iii. verification of ownership where necessary
iv. identification of asset classes and components
v. assessment useful life
vi. validation of data
vii. Identification of appropriate valuers for each class of asset

The development process requires supports from effective information system, efficient and dedicated work force and substantially high costs.

Development of Information Systems

Government entities cannot afford to handle huge volumes of recording in relation to assets register. Therefore, to create the accrual accounting environment, the department must invest in the establishment or development of suitable general ledger software.

The use of computerised accounting system provides easy and quick access to the information required. It can reduce paper-handling cost but will be opened to a risk of having system breakdown if no appropriate precaution takes place.

In spite of that, the development of computer systems capable of handling the introduction of in house general ledger software is often daunting, and requires a considerable investment of financial and human resources (Churchill 1992).

Staff Trainings and Resistants

To accommodate such development in accounting systems, staff should undergo trainings to equip themselves with appropriate and sufficient knowledge and skills. Allocation of funds is necessary to finance these training programs and it hardly involves small amount since it is applicable to overall organisations at various levels depending on their needs. However, it is also important not to over-invest in training (OECD 2002). Complication accompanying accrual accounting also requires further explanation of the responsibilities of each parties or individual.

Resistant to under go the training programs is unavoidable. Individually, they are unable to see the importance and the need for it. Senior staffs might have a computer phobic. The ANAO (1994 and 1995) found that many departments were not well prepared for introducing Accrual Financial Reporting, especially in regard to staffing, system integration and lack of commitment from management decision making.

Accounting Profession

As government entities struggle to adapt to the new processes and procedures, the status and responsibilities of members of the accounting profession in advisory will increase. At present, the accountants in the government sector are not recognized as specialist. However, the move by the federal government towards a full accrual accounting structure will have a significant effect on the importance and standing of the government accountants. Their specialized knowledge will be invaluable. As a result of the increase of specialist nature in accounting work, it will become more important just as accountants who are working in the public sector to have strong credentials and professional accreditation, like the Certified Public Accountant (CPA).

Full Cost Pricing

Accrual accounting makes full cost pricing possible which is useful for the costing of in-house bids for competitive tendering purposes. Providing competitive tenders will ensure services provided are up to the standard.

Full cost makes it possible also for the government to charge the public for the services provided to cover the cost. The drawback of this is, the public might have to pay for the services regardless whether it is the duty of the government to serve the general public or not.

Unfortunately, its calculate full cost requires inclusion of depreciation. Difficulty will arise as depreciation already has its own inheritance conflicts such as estimation of useful life, determination of valuation and depreciation methods. For full cost to really enhance decision making, issues related to assets revaluation need to be dissolved first.

Overhead allocation will also face some difficulties such as to decide basis of apportionments and cost centres. There is an urge need for management accountants to play their role in implementing a comprehensive system to quantify above cost.

Budgeting

Churchill (1992) recognised some of the benefits of budgeting on an accruals basis namely:

i. one can monitor trends in receipts versus revenue (e.g are customers' payments slowing down due to the recession?)
ii. one can recognize that a number of expenditures which occur infrequently may not relate to the period in which the expenditure is made (e.g periodic machinery overhauls)
iii. one can identify the extent to which some expenditure has been deferred.
iv. one can recognize asset depletion through amortisation and depreciation.

Departments need to have indicators as to what is meant by over-budget or under budget. If there appears to be some variances, managers should have the idea on what should they do and how should they react.

Creative Accounting

The term creative accounting is sometimes applied widely to cover everything from long-standing accounting practices which permit different entities to employ different methods to account for the same type of transaction (Griffiths 1986) to state-of-the-art financial engineering in which capital is raised in ways which have little commercial rationale other than to alter, and at least by implication, manipulate, the way the transaction is shown in the financial statements. Motive to influence the thinking of those users of the financial performance by interpreting the record of past events. (Rutherford: 26)

The implementation of accrual accounting has opened up a new door for another problem. Accrual accounting involves subjectivity in making decision such as in deciding useful life of assets, methods to calculate depreciation and so on. Creative accounting may distort the result and is not going to reflect the actual condition of the organisations.

Conclusion

Accrual act has its strengths and advantages. However, before the government entities can truly enjoy and experience such advantages, various barriers need to be demolished. It is seen that if the difficulties discussed above can be overcome, nothing much can prevent government entities to act like private sectors and enjoyed the benefits intact.

I would say, the implementation of accrual accounting in public sector is still at its infancy stage as compared to the traditional cash-based system. Therefore, there is still along way to go, a lot of things have to be considered for the future years. Hopefully the barriers and difficulties are not going to discourage government entities to implement accrual accounting.

References

Churchill, M. (1992). The Winds of Change*, Australian Accountant*, March, 17-20.

Financial Accounting Standard Board (FASB) (1978). *Concepts Statement No. 1: Objectives of Financial Reporting by Business Enterprises* (Issue Date 11/78).

Funnell, W. and Cooper, K. (1998). *Public sector accounting and accountability in Australia:* Sydney, UNSW Press.

Griffiths, I. (1986). *Creative Accounting*, Sidgwick and Jackson.

Guthrie, J. (1998). Application of accrual accounting in the Australian public sector – rhetoric or reality*? Financial Accountability and Management,* Vol. 1.

Hay, D. (1992). Public sector accounting in New Zealand*:* An update and clarification'*, Financial Accountability and Management,* (14): 4 & 5.

Hoque, Z. and Moll, J. (2001). Public sector reform: Implications for accounting, accountability and performance of state-owned entities- an Australian perspective*, The International Journal of Public Sector Management,* (14): 4 & 5.

International Public Sector Accounting Standards (IPSAS).

Organisation for Economic Co-operation and Development (OECD), (2002). 23rd Annual Meeting: Senior Budget Officials, Washington D.C, 3 – 4 June 2002.

Ranby, P. (1997). *Introducing accrual accounting: reaping the benefits while avoiding the pitfalls,* Public Sector-Best Practice Case Studies 1997, *Public Sector Accounting Centre of Excellence, Australian Society of CPAs,* 32 – 42.

Robinson, M. (1998). Accrual accounting and the efficiency of the core public sector, *Financial Accountability and Management*, (14): 1.

Samidi, J. (1991). *Accrual Accounting in the public sectors – implications,* paper presented at the Accounting Standards in the Public Sector Seminar Series II organized by PERSAMA in collaboration with IPSAM on 16-19 August 1991, held at Burau Bay Resort, Langkawi.

Webster, A. (1998). Improving performance: accrual accounting points the way ahead*, Australian CPA*, (68)3: 24-26.

Appendix 1

Table 1: Accounting Basis Applied for Budget Approved By Legislature

	FULL ACCRUAL BASIS	ACCRUAL BASIS, EXCEPT NO CAPITALISATION OR DEPRECIATION OF ASSETS	CASH BASIS, EXCEPT CERTAIN TRANSACTIONS ON ACCRUAL BASIS	FULL CASH BASIS
Australia	X			
Austria				X
Belgium				X
Canada		X		
Czech Republic				X
Denmark			X (1)	
Finland		X (2)		
France				X
Germany				X
Greece				X
Hungary				X
Iceland		X		
Ireland				X
Japan				X
Korea				X
Luxembourg				X
Mexico				X
Netherlands				X
Norway				X
New Zealand	X			
Poland				X
Portugal				X
Spain				X
Sweden				X
Switzerland				X
Turkey				X
United Kingdom	X (3)			
United States			X (4)	

i. Denmark – interest Expenses and Employees Pensions treated on Accrual Basis.
ii. Finland – Transfer Payments Not on Accrual Basis
iii. United Kingdom – Budget on Full Accrual Basis Effective Fiscal Year 2001-2002.
iv. United States – Interest Expenses, certain Employee pension Plans, and Loan and Guarantee Programmes Treated on Accrual Basis

Source: OECD Budgeting Database

Appendix 2

Table 2: Plans to Move Budget to Accrual Basis

	FULL ACCRUAL BASIS BUDGETING TO BE INTRODUCED	ADDITIONAL ACCRUAL BASIS INFORMATION TO BE PRESENTED
Canada	X(1)	
Denmark		X
Germany		X
Korea	X(1)	
Netherlands	X	
Portugal		X
Sweden	X(1)	
Switzerland	X(1)	

Under Active Consideration
Source: OECD Budgeting Database

Appendix 3

Table 3: Accounting Basis Applied for Consolidated (Whole-of-government) Financial Statements

	FULL ACCRUAL BASIS	ACCRUAL BASIS, EXCEPT NO CAPITALISATION OR DEPRECIATION OF ASSETS	CASH BASIS, EXCEPT CERTAIN TRANSACTIONS ON ACCRUAL BASIS	FULL CASH BASIS
Australia	X			
Austria				X
Belgium				X
Canada		X		
Czech Republic				X
Denmark			X (1)	
Finland	X			
France			X (2)	
Germany				X
Hungary				X
Iceland		X		
Ireland				X
Japan				X
Korea				X
Luxembourg				X
Mexico				X
Netherlands				X
Norway				X
New Zealand	X			
Poland			X (3)	
Portugal				X
Spain				X
Sweden	X			
Switzerland				X
Turkey				X
United Kingdom				X (4)
United States	X			

Denmark – Interest Expense and Employee Pensions Treated on Accrual Basis
France – Interest Expense and Certain Other Transactions Treated on Accrual Basis. Full Accrual Basis to be introduced.
Poland – Employee Pensions Treated on Accrual Basis
United Kingdom – Statements on Full Accrual Basis Effective Fiscal Year 2005-06
Source: OECD Budgeting Database

Appendix 4

Table 4: Additional Use of Accruals in Departmental/Agency Level Financial Statements

	DEPARTMENTAL/ AGENCY LEVEL FINANCIAL STATEMENTS ON FULL ACCRUAL BASIS	FINANCIAL STATEMENTS ON FULL CASH BASIS BUT SUPPLEMENTARY ACCRUAL INFORMATION IS PRESENTED
Belgium		X
Germany		X
Hungary		X
Ireland		X
Japan	X	
Netherlands	X	
Portugal	X	
Switzerland	X	
United Kingdom	X	

i. This refers to departments/agencies that prepare separate financial statements for their own operations and where such financial statement contain more accrual information than the consolidated (whole-of-government) financial statements. In cases where the consolidated (whole-of-government) financial statements are on full accrual basis (Appendix 3), departmental/agency level financial statements would also be on full accrual basis.

Source: OECD Budgeting Database