Suspicion Where Suspicion is Due: Myths and Rhetoric in the Accrual Budgeting Tale

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Abstract:

The past fifty years have borne witness to the introduction and failure of several waves of public budgeting methodologies. The most recent entrant to this club is the complex but presently popular accrual output based budgeting technique. Proponents of this budgeting methodology claim that its adoption will yield considerable efficiency and effectiveness improvements. However, these claims are not supported by empirical evidence and close analysis suggests that there is no reason to expect efficiency miracles as the result of the adoption of accrual output based budgeting systems. In this paper, it is argued that claims that making the output the key object of the budgeting system result in efficiency gains are false. Other failed budgeting models drawn from history also had outputs as their key objects, yet these too failed. The real driver of expected efficiency gains related to the adoption of accrual output based budgeting systems is the market like structures built into these new budgeting infrastructures. In this paper, it is argued that these too are unlikely to provide the panacea their proponents claim, leaving little room for optimism in relation to the likely performance impact of accrual output based budgeting systems in practice.

Key Words

Accrual output based budgeting, quasi markets, new public financial management
1 Introduction

From the early 1990s onwards, a small cluster of mainly Anglo Saxon countries, in particular New Zealand, Australia and the United Kingdom, embarked on a series of radical reforms to the institutions and practices of public management and financial management. The changes wrought in these jurisdictions were profound, and resulted in a massive withdrawal of the state from areas in which it had been intimately enmeshed in all three abovenamed jurisdictions for an extended period.

The most obvious of these changes were the massive privatisation programs embarked upon by the governments of these countries, but changing the locus of asset ownership was by no means the only item on the agenda of reforming elements. The objective was far wider. It was based fundamentally on the ideological position that smaller government is better than larger government, that whatever could be produced or done outside the vestiges of government should be handled by the private sector\(^1\), and that the non government sector is fundamentally more efficient than the government sector for most activities.

Notwithstanding this, even radical reformers recognised a place for government and public institutions. There was no reason however, for these institutions to be shielded or protected from the efficiency inducing forces associated with contractual market based dealings, and it therefore followed that even to the extent that a residual public sector was necessary, it should look and behave more like the commercial sector, and less like the public sector of old. This had repercussions for management structures and practices, as well as financial management conventions and techniques.

Given the central role of the budget as an institution for both resource allocation and financial management within the public sector, it should come as no surprise that considerable emphasis has been placed in many jurisdictions throughout the world on altering budgeting and budgetary management practices with a view to improving both the efficiency and effectiveness of government agencies. It is in this context that a small number of jurisdictions have embraced accrual output based budgeting as a means of stimulating performance improvements (including per unit of output cost reductions) within their public sectors.

This paper provides an overview of differing budgeting systems which have been used in a variety of jurisdictions throughout the world, and provides a brief assessment of the key characteristics of each, together with some some strengths and weaknesses of each. The motivation for this section of the paper is to remind the readership that the construction of a public budgeting system is an inherently flexible exercise, the characteristics of different key structures and underlying accounting methodologies being able to be fused together to construct hybridised models well suited to the needs of particular jurisdictions.

Next the paper examines the adoption of accrual accounting and budgeting within the public sectors of a range of international jurisdictions. Both accrual accounting and reporting as well as accrual budgeting are examined in this section of the paper, since

\(^1\) Or the so called “third sector”. For example in Australia, many church and not for profit organisations now play an active part in the Commonwealth Government’s employment placement and training strategies for combating unemployment.
the adoption of accrual accounting and reporting is a necessary precursor to the implementation of any accrual based system of budgeting.

It is important therefore to gain perspective on the timeframes involved in the adoption of the former, as well as to take note of the material discrepancy which exists between the number of jurisdictions which have adopted accrual accounting and reporting, versus the comparatively very small number of settings in which full accrual budgeting (of an output orientation) has been adopted. This section of the paper also examines the key reasons proponents of accrual budgeting systems advance in favour of adoption.

The next section of the paper provides some critical analysis of the claims made in favour of accrual budgeting, and refers to some emerging empirical evidence relating to the experience of jurisdictions in which such a system has now been in place for a relatively prolonged period. Finally, some conclusions are offered.

2 Overview of Public Budgeting Systems and Their Application

Internationally, the process of public budgeting is (and has been) administered via a wide array of different methodologies. An overview of the nature and character of these techniques is of assistance in informing choices to be made with respect to future budgetary management techniques to be adopted within a particular jurisdiction.

Several different classification typologies for public budgeting systems can be adopted. One differentiates budgeting systems on the basis of their underlying accounting processes. According to this typology, there are essentially three main types of public budgeting systems:

1. Cash based systems;
2. Modified cash / modified accrual systems; and
3. Full accrual systems.

Alternatively, it is possible to classify public budgeting systems on the basis of the mode of control over public funds and resources exercised by the system. Adopting this approach to classification, a wider number of alternatives can be identified. These include:\footnote{The list is not intended to be exhaustive, but rather to survey the main categories of systems in use or which have been implemented in well documented settings.}

1. Line item budgeting;
2. Performance budgeting;
3. Planning programming budgeting systems (PPBS);
4. Zero based budgeting systems;
5. Cutback budgeting; and
6. Output based budgeting.

The latter approach to classification is preferable to the former, given that a variety of underlying accounting methodologies can be employed to support each of the
budgeting methodologies set out in the second classification scheme above. None of the accounting methodologies necessarily dominates, nor does any enjoy a theoretical monopoly relationship with any of the budgeting techniques commonly in place.

2.1 Line Item Budgeting

This type of public budgeting system is generally attributed to seminal research conducted by the New York Bureau of Municipal Research in the early years of the 20th century. The objective of the Bureau’s influential research agenda was to develop a budgeting system which would reduce waste and inefficiency within government, facilitate improved cost control and serve as a powerful counter to corruption. The system is a simple one. The needs of a particular agency are classified as comprising a set of input line items. Resources are then allocated against each line, and expenditure against authorised appropriations monitored.

Line item budgeting is a simple format to manage and deploy in the context of limited available financial information or processing capacity and time constraints. It is readily able to be understood, both by recipients of resources and by those responsible for the allocation and monitoring of resources. It has been used widely throughout the world, and although it is most commonly associated with an underlying cash based accounting scheme, there is no reason why it could not be used in a modified or full accruals environment.

The main criticism of this type of system is that while it permits relatively straightforward and effective stewardship of public funds, it does not readily facilitate the derivation of strong insight into the cost of activities and outputs (since the budget data and management focus lie at too high a level), nor act as an effective means of stimulating operational performance improvement. As a result, line item budgeting has fallen out of favour in many jurisdictions, particularly those such as the United Kingdom, New Zealand and Australia which have been identified as standing in the vanguard of public financial management reform.

2.2 Performance Budgeting

This form of budgeting first emerged during the 1950s, and revolved around the concept of developing measures of workload and performance, and relating them, via the budgetary process, to the cost of achieving such activities. As such, a capacity for accurate unit costing is a necessary technical underpinning to such a budget methodology. This system was used in the United States until the early 1960s.

It failed for several reasons, the most important of which was the lack of compatibility between the types of activities carried out by government and the ideal of unit costing. For example, defence related activities, which often represent a significant proportion of overall expenditure by federal level governments, are not typically conducive to meaningful unit cost analysis. Secondly, since performance based budgeting systems focus on the achievement of planned policy outcomes, the system is inherently far more complex to design an operate than a line item budgeting system. Defining outcomes and gathering the data necessary to determine whether or not they had been achieved, not to mention the causalities between government action and policy outcome, especially in areas like public health where the actions of many individual
agencies might contribute, proved more time consuming and costly than had been foreseen prior to implementation. Given the complexity of the system, a far higher degree of technical skill on the part of staff operating the system is required than in the case of line item based systems.

Despite the failure of this system in the United States during its first period of implementation, the idea again rose to prominence in that jurisdiction during the 1990s, and has enjoyed a resurgence in use and popularity in that country particularly in the wake of the rise to prominence of Osborne & Gaebler’s famous treatise on entrepreneurial and performance oriented government, Reinventing Government. It is estimated that thirty seven U.S states currently use some variant of performance budgeting (Pattison & Samuels, 2002). A similar form of budgeting based on funding for unit costs in agencies with identifiable outputs is also used in Singapore (Jones, 2001).

2.3 Program (PPBS) Budgeting

Program budgeting was created by the United States Department of Defense in 1961. In this system, all expenditure is categorised into distinct, policy focused programs of activity. The theoretical underpinning of this system was the use of systems theory and cost benefit analysis for the purpose of integrating the planning and budgeting process. Whereas in performance budgeting, the activities measured simply represented the processes through which inputs were transformed to outputs, in program budgeting, substitutable alternatives are evaluated for their contribution to the program objective, resulting in better quality decision making.

Thus program (PPBS) budgeting represented a system in which policy analysis and budget management were integrated. This resulted in enormous costs, as a result of the massive information and analytical demands of the system (Schick, 1966). This system failed under the weight of these demands, and lasted no more than a decade in operation in the United States in its original incarnation.

2.4 Zero Based Budgeting

This system gained brief popularity in several jurisdictions, but notably the United States, during the late 1970s and early 1980s. In this form of budgeting, rather than making incremental adjustments to allocations from previous periods, each agency receiving funding was required to examine its activities and needs afresh each period. In theory, this requirement would prevent costs from continuing to persist across periods unless they could be explicitly justified. In practice, zero based budgeting failed due to the intolerably high workload it created (with particular strain being caused by the need to re-justify each item of expenditure every budget cycle) (Kelly, 2003), and did not achieve the cost savings which had been anticipated by its advocates (Lauth, 1980). As a rule, zero based budgeting is not focused on the determination of unit costs, but rather, on the control and justification of costs at a higher level of aggregation.

2.5 Cutback Budgeting
The basis of cutback budgeting is the dichotomisation of total planned expenditure into mandatory and discretionary components. Spending cuts then focused on the elements of activity classified as discretionary. This technique is associated with response to fiscal crisis, but has been of limited usefulness in jurisdictions in which growing proportions of overall expenditure are classified as mandatory, leaving the burden of targeted savings on a comparatively small segment of the total budget (Pitsvada & LoStracco, 2002).

2.6 Output Budgeting

In contrast to traditional cash-based input focused budgeting systems such as line item budgeting discussed in section 2.1 above, Accrual Output Based Budgeting (AOBB) represents an attempt to transform the public budgeting process into a system in which governments purchase outputs from providers. In this sense, the budget mechanism becomes not just a simple resource-allocation system, but rather the clearing house for a range of market and quasi-market transactions between central financial management departments, acting as principal, and agent providers. Under the AOBB system, the budget process itself becomes a key instrument for achieving allocative efficiency, rather than simply the tool through which resource-allocation decisions are transmitted and documented (Robinson 2000).

In AOBB systems, the foundation of the funding decision is the collection of outputs produced by agencies. Outputs are defined as goods or services produced by agencies as a result of the expenditure of their effort and resources. An agency’s annual budget appropriation represents the product of the quantities and prices of outputs which the agency contracts to provide for a central financial or policy decision-maker.

The resource-management process in AOBB systems proceeds from a consideration of the agency’s operational plans for the production of outputs and achievement of outcomes to a consideration of the inputs required to finance the desired operational ends. This reverses the direction of the analytical flow associated with input budgeting, where outputs and outcomes, if considered at all, were the final, not the foremost, objects.

Since this type of budgeting system focuses on what agencies do and achieve, rather than purely on the inputs required to fund operations, it is argued that it is a system highly conducive to stimulating performance improvements. The fusion of accrual accounting concepts into the budgetary system is argued to allow the system to capture the full cost of outputs produced, thus providing decision makers with better quality information on which to base resource allocation tradeoffs.

3 International Adoptions of Accrual Accounting & Budgeting

Accrual based accounting and financial reporting in the public sector is not, despite appearances to the contrary, an entirely new phenomenon. By way of example, it has been noted that in Australia, the Postmaster-General’s department commenced preparing commercial accounts (including a full profit and loss statement and balance sheet) in 1913, and continued to use this form of reporting through time (Standish, 1968). However, cash rather than accrual accounting has been the mainstay of
accounting and financial reporting in the public sector throughout the world through till the late 1990s (OECD, 2002, p.17). The same can be said of public budgeting systems, which have until recently, in a small number of jurisdictions, been almost exclusively cash based.

Though budgeting, and in particular, accrual output based budgeting and not accrual accounting and financial reporting represents the key focus of this document, the adoption of accrual accounting has represented a necessary precursor step to the adoption of accrual output based budgeting. As sections 3.1 to 3.5 below demonstrate, a wide range of jurisdictions have now adopted accrual accounting as the key methodology used within their public sectors. However, the review below also demonstrates the long lead times which have been associated with the implementation of this reform, even in relatively sophisticated public management environments. While jurisdictions contemplating such a path now have the benefit of the considerable experience derived in a wide range of settings, nonetheless, the overview of international experience set out below suggests that even the implementation of accrual accounting and reporting can be a lengthy, resource hungry exercise. There can of course be no question of adopting accrual output based budgeting models without prior implementation of accrual accounting and financial reporting structures.

3.1 Accrual Accounting in the New Zealand Public Sector

The shift towards a comprehensive accrual oriented public sector accounting and financial reporting structure began to take place in the late 1980s, most notably in Australia and New Zealand. The latter jurisdiction became the first sovereign nation to fully implement accrual accounting at both a national and agency level. By the early 1980s, many New Zealand GTEs had adopted accrual accounting and financial reporting (IFAC, 1996). However, the most significant impetus for wholesale adoption of accrual accounting in the New Zealand public sector\(^3\) can be attributed to two pieces of legislation, the *State Sector Act 1988* (NZ) and the *Public Finance Act 1989* (NZ).

The first of these milestone pieces of legislation created a new legal framework for the relationship between departmental heads and their Ministers. The fundamental goal of redesigning these relationships was to increase the accountability to Ministers of departmental heads for their performance and that of their departments.

Reconstituting the accountability framework in this manner entailed modifications to the broader accountability infrastructure. These were embodied in the *Public Finance Act 1989* (NZ) which included requirements that audited accrual financial reports be produced at both a whole of government and an agency level. The act came into effect on 1 July 1989. By December 1990, all 49 New Zealand government departments in existence at the time had migrated to an accrual accounting environment, leading to the production of the first accrual based whole of government reports a year later (Ball et al, 1999).

\(^3\) There had of course been a more wide ranging contemplation of the issue than is necessary to catalogue here. For example, in 1978, the New Zealand Comptroller and Auditor General had advocated accrual accounting as a means of improving cost and asset management (NZ Audit Office, 1978).
3.2 Accrual Accounting in the Australian Public Sector

In Australia, accrual techniques had also been used selectively from the early 1980s onwards. Statutory authorities\(^4\) of both the Commonwealth of Australia and the state of New South Wales\(^5\) adopted accrual based financial reporting from 1983 onwards (Funnel and Cooper, 1998, p. 130), an outcome informed significantly by the findings of a lengthy though influential report\(^6\) issued by the Commonwealth Joint Committee of Public Accounts\(^7\) (JCPA, 1982), as well as the general framework for reform of the public sector discussed in the earlier Royal Commission into Australian Government Administration (RCAGA, 1976)\(^8\) and the “Willenski Report” into NSW government administration which issued reports in 1977 and 1978\(^9\).

The most direct impetus for change in accounting and reporting systems however, came with the election in 1988 of a conservative government in New South Wales, under the premiership of Nick Greiner\(^10\). Prior to coming to office, Greiner evinced an intention, if elected, to introduce business like practices and techniques to government, specifically including accrual accounting (Christensen, 2002). Immediately upon assuming office, he instituted\(^11\) a Commission of Audit, a key recommendation of which was that NSW proceed to adopt accrual based accounting and reporting at both a whole of government and agency level. Though this type of recommendation would hardly be viewed as such today, when made, it was described as innovative and radical (Groom, 1990, p.153).

Relatively swift implementation action took place after this point. The 1990/91 NSW Budget Papers announced the government’s intention to adopt accrual accounting and reporting throughout the state public sector over a three year roll out period (Nicholls, 1991, p.34). This was achieved within the proposed timeframe, and in advance of the

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\(^4\) Which later became so called “Government Trading Enterprises” (GTEs) or “Government Business Enterprises” (GBEs).

\(^5\) Australia is a federal state. The Commonwealth Government is the national tier of government. A second tier of government exists in relation to the states and self governing territories. A third tier of government comprises local government. Only the first two layers of government are constitutionally recognised. The state of New South Wales is the oldest and most populous of the Australian states.

\(^6\) Report 199.

\(^7\) It should also be noted that between 1978 and 1982 the Commonwealth Senate Standing Committee on Finance and Government Operations (SSCFG0) published a series of reports which indicated a clear preference for the adoption of accrual accounting techniques by statutory authorities. See for example, SSCFGO (1980).

\(^8\) For a discussion of the accounting and financial implications of the Royal Commission, see: Parker & Guthrie, 1990.

\(^9\) Neither the Royal Commission on Government Administration nor the Review of NSW Government Administration (Wilenksi Report) specifically addresses the question of accrual accounting. However, both reports had the effect of shaking the at that point ossified structure of public administration, leaving the way open for the contemplation of reforms such as the adoption of accrual based accounting and financial reporting.

\(^10\) Greiner is a Harvard MBA graduate and came to government with an avowed intention to make government more businesslike, and thus efficient.

\(^11\) This quickly became a time-honoured tradition in Australian government. Many changes of government during the late 1980s and 1990s were accompanied by the instigation of a Commission of Audit by the incoming administration. These have included: NSW 1988, Tasmania 1992, Victoria 1992, Victoria 1993, Western Australia 1993, South Australia 1994, Queensland 1996 and Commonwealth 1996. All of these recommended the adoption of accrual based accounting and financial reporting by the governments in the relevant jurisdictions.
implementation of accrual systems in any other Australian state or territory (Walker, 1995, p.10). The Commonwealth government announced its commitment to the cause in November 1992 (Christensen, 2002, p.29). Victoria implemented accrual reporting from June 1996 onwards and by the conclusion of the decade, all Australian jurisdictions had adopted accrual based accounting and financial reporting systems\(^{12}\).

### 3.3 Accrual Accounting in the Public Sectors of Canada and the U.S.

Canada, another constitutional monarchy which inherited its traditional governance and public sector financial management arrangements from the basic Westminster model, has also adopted accrual accounting. Early indications of interest in accrual accounting in the Canadian public sector can be traced back at least as far as 1962, when the Royal Commission on Government Organisation (the Glassco Commission) observed that it was desirable that public sector organisations adopt accounting systems which tracked the complete cost of producing goods or services, in order to facilitate better decision making (Glassco, 1962). A later enquiry directed specifically at the issue of financial accountability and management, the Lambert Commission (Lambert, 1979) reached similar conclusions in relation to the desirability of implementing accounting systems (such as accrual or modified accrual systems) capable of more fully capturing the cost of government operations.

However, unlike the position in Australia and New Zealand in which the eighties represented a time of gathering momentum for the introduction of accrual accounting and reporting, in Canada, there is little evidence of substantial progress during that period. In 1987, the Office of the Auditor General of Canada issued a document entitled the “Financial Management and Control Study” (CanAG, 1987). This document echoed the sentiments of the Lambert report and suggested that the state of Canada’s accounting and reporting systems was, at the time of publication, still incapable of providing information adequate for the needs of improved sector wide financial management.

In 1989, the Treasury Board of Canada announced its approval of a proposal to develop and implement a government wide Financial Information Strategy (FIS), centred on the adoption of full accrual accounting. Strength of intention did not translate into swift action, and despite numerous reiterations, on the part of senior Ministers to adopt accrual accounting and reporting, the timetable was pushed back to a goal of phase-in by 2001\(^{13}\), a delay of more than a decade from the original point of adoption of the FIS (CGAAC, 1999).

The move towards accrual accounting and financial reporting in the United States followed a similarly tortured path to that trod in Canada. An important milestone in the journey towards this outcome was the formation, in 1984, of the Government Accounting Standards Board (GASB) in the United States. By 1987, this body had issued Concepts Statement No. 1, which established several key foundations for future public sector financial reporting, including explicit consideration of matters

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\(^{12}\) As distinct from budgeting systems.

\(^{13}\) At the time of writing, the OECD still records Canada as having a partial rather than full accrual system by reason of its policy of expensing rather than capitalising long lived assets at date of acquisition. (OECD, 2002).
pertaining to intergenerational equity, efficiency and compliance. Though Concepts Statement No. 1 was not focused on the question of accrual accounting, nor did it explicitly prescribe or mandate the technique, reconciliation with the stated foundation principles of intergenerational equity, at the very least, seems to strongly suggest an ultimate preference for accrual accounting and reporting.

The remainder of the 1980s, through to the late 1990s were characterised by much the same stop start process which had defined the Canadian experience through the same period. However, by 1997, GASB had mapped out a comprehensive framework for government wide accrual accounting and financial reporting, an initiative brought to fruition for all financial years ending after June 2001 (Ball et al, 1999).

3.4 Accrual Accounting in the U.K Public Sector

Across the Atlantic, in the United Kingdom, matters moved somewhat more quickly. In 1992, the first widespread application of accrual accounting methodologies in the UK public sector came with the creation of NHS Trusts (Broadbent, 1992). However, the application of accrual practices within the UK national health system may be viewed as a pilot application, the model adopted within one sector providing the basis for a later public sector wide roll out.

Thus in 1993, the Chancellor of the Exchequer announced, as part of that year’s budget proposals, that “resource accounting”\(^{14}\) would be implemented throughout the UK public sector over the successive 3 – 5 years (H M Treasury, 1993). Further details were released and a period of public consultation period (of eighteen months) was announced in 1994 (H M Government, 1994), at the conclusion of which, a timetable requiring the adoption of accrual accounting by 1998 was set in place (H M Government, 1995). The actual implementation of public sector wide accrual accounting and reporting took longer than envisaged, the original timetable being amended to require dry run accounts for the 1998/99 year, and full audited and published accrual accounts for the financial year ending March 31 2000 (IFAC, 2002).

3.5 Other International Adoptions

In addition to the jurisdictions discussed above, full accrual reporting for budget funded agencies has been adopted in the Netherlands (OECD, 1997), Finland, Japan, Portugal, Sweden and Switzerland (OECD, 2002). Iceland uses a modified accruals system, differing from the “full” accrual model only in that as a matter of policy, all long lived assets are expensed at the point of acquisition. In other jurisdictions, a primarily cash based reporting framework is maintained, supplemented by additional accrual disclosures.

Table 1 below provides an overview of the international adoption of accrual based accounting and financial reporting for budget funded agencies. A three way classification system is adopted, jurisdictions being categorised as using “full accrual” (largely indistinguishable from typical commercial practice), “modified accrual”

\(^{14}\) A term of the art used in the United Kingdom which encompasses, amongst other things, the adoption of an accruals framework for financial reporting and budgeting purposes.
(essentially reflecting commercial practice but with less emphasis on comprehensive statements of financial position) or “cash with accrual disclosure” models of reporting.

Table 1 Accrual Financial Reporting By Budget Funded Agencies

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The necessarily brief review of international adoption of accrual accounting and reporting by budget funded agencies set out above suggests that although the implementation experience has differed significantly between jurisdictions, particularly on dimensions such as degree of public consultation and gestation period, the trend towards the adoption of accrual accounting is a global, rather than an English speaking “club” phenomenon.

Indeed, the repetitious reference in technical and academic literature to the experience of Australia and New Zealand in particular, as early adopters of comprehensive accrual frameworks, may have resulted in insufficient recognition of the breadth and depth of the impetus towards the adoption of accrual accounting and financial reporting techniques within the public sectors of a growing number of jurisdictions throughout the world. Even in those jurisdictions where the least reforming fervour has been demonstrated, for example parts of continental Europe and South America, it is difficult to find remaining examples of pure cash based accounting and reporting frameworks (Morphett, 1998).

3.6 International Adoption of & Rationale for Accrual Based Budgeting

Despite the widespread adoption of accrual accounting and reporting within the public sectors of many jurisdictions internationally, far fewer have proceeded towards the
implementation of accrual based budgeting systems. There is at present no clear explanation of the lower adoption rate of accrual budgeting systems.

One plausible argument relates to timing. Since the adoption of accrual based accounting and reporting is a necessary pre-cursor to the construction of an accrual budgeting system, jurisdictions which adopted accrual accounting relatively late in time may still be involved in the process of bedding down which follows the adoption of any significant reform.

Another relates to the complexity associated with the kinds of accrual budgeting systems which have been put into place in the limited number of jurisdictions (most notably New Zealand, various levels of government in Australia and the United Kingdom\textsuperscript{15}) which have chosen to implement full accrual output based budgeting structures.

Policy makers in other jurisdictions may have determined that the cost associated with creating and maintaining the infrastructure required for such a system outweighed any obvious benefits flowing from implementation. This would certainly represent a valid basis on which to elect not to pursue such a path, particularly in circumstances where in a particular jurisdiction, there existed concerns as to the sufficiency of resources even to successfully operate a formalised public financial management system (Schick, 1998).

The dollar cost of implementation of such systems can be particularly high. Wilkins (2001, pp14 – 15) refers to estimates of initial software and training costs within the Australian Public Services of AUD$35 million, with the Canadian government (which to date does not have a complete accruals based system, as discussed above) spending more. In the Australian context, the figure of AUD $35 million should not be treated as representing the full extent of cost to government in general of adopting such reforms. This is because the figure quoted by Wilkins refers only to the Commonwealth (federal) government, to the exclusion of expenditure by State governments and local governments. Thus in the case of Australia as a whole, when including the state governments of Victoria, Queensland, Western Australia, South Australia, Tasmania, and the governments of the Australian Capital Territory and the Northern Territory, which have all adopted accrual output based budgeting systems in the past few years (Carlin & Guthrie, 2003), the cost would be several factors larger than the sum identified by Wilkins, but possibly total up to AUD $200 million.

Note that these are direct costs, and do not include any of the indirect flow on costs triggered by the change. In addition to upfront cost burdens, significant incremental ongoing cost burdens are likely to result, triggered by heightened direct salary costs stemming from the expanded cohorts of professional accountants it becomes necessary to employ to facilitate the operation of the system (Schick, 1998), the expanded training requirements and greater direct information technology costs. Again, the incremental ongoing cost burdens would not be limited to direct costs. No published research to date\textsuperscript{16} has quantified these costs, yet such information would be

\textsuperscript{15} But also Italy, and on a modified basis, without depreciation charges or the capitalisation of assets, Canada, Finland and Iceland. See (Blondal, 2000).

\textsuperscript{16} Of which the author is aware as at the time of writing.
vital to the determination of any net benefit stream likely to flow from the implementation of such a system.

Nonetheless, reforming voices who advocate the use of accrual output based budgeting systems as a replacement for input focused cash systems generally assert that the benefits of pursuing such a course of action are of such a magnitude as to represent a compelling case for change. Benefits commonly asserted to stem from the implementation of AOBB systems include:

- Increased customer focus.
- Concentration on the supply or services/products.
- A theoretical & practical separation of purchaser and owner.
- Reflection of “full” costs – as measured on an accrual basis.
- Provision of clear and informed choices to buyers of goods and services.
- Provision of a conceptually sound basis for internal and external resource allocation.
- Focus on the production of outputs and the achievement of outcomes, leading to better management and value for money.
- Increased analytical capability, particularly in relation to the asset and liability position of government (see for example; Bartos: 2000 p. 13; Qld Treasury, 1997 p.17).

There is essentially no existing empirical evidence to confirm any of these claims. However, it is possible to be explicit about the theoretical source of anticipated gains to be brought about as a result of the implementation of an AOBB system. They do not arise by means of the system’s focus on outputs as key budgetary objects. It is possible to have confidence about this proposition, because earlier, demonstrably failed budgeting systems have also had outputs as their primary objects (i.e. PPBS) (Schick, 1973; Wildavsky, 1979; Savoie, 1990; Sorber, 1993). Rather, the expectation of improved performance and cost control stemming from the introduction of AOBB systems stems from the hard contractual market model which lies at the core of the system (Carlin, 2003a). In order to function and deliver the benefits touted by central financial agency protagonists, fundamental structural reforms to the manner in which governments function are necessary.

In the context of AOBB systems such as those implemented in New Zealand and a variety of Australian jurisdictions, Ministers and departmental secretaries act as agents for the government. It is they who purchase the specified services and manage the purchase relationship in the most efficient and effective manner to meet government outcomes. The Government, via the Budget Papers, specifies the broad outputs, and responsible Ministers and their secretaries purchase these.

Providers of these services can be either internal or external to the public sector, hence the idea of ‘contestability’. Contestability theorists argue that the potential entrance of new market participants represents the single most effective means of stimulating improvements to efficiency (Bailey, 1981; Lapsley, 1993). The stimulus to performance improvement is therefore seen as the removal, or at least the credible threat of removal, of large chunks of activity from within the public sector sphere to the private sphere, via competitive tendering, outsourcing, contracting out and other related mechanisms.
This solution however, requires, at a minimum, a set of fully or nominally functioning markets from which to draw price signals from competing resource providers, including traditional budget funded incumbents. These markets, or more accurately, quasi markets, would require a comprehensive set of cost or price inputs, yet information produced by public sector agencies has traditionally not given rise to detailed data relating to the cost of producing individual goods or services.

The adoption of output based budgeting can be interpreted as a solution to this “missing information” problem, since budgets produced along these lines contain estimates of the quantity of “outputs” (goods or services) to be produced by a government, together with the aggregate cost of production, meaning that unit costs ought to be able to be calculated (Carlin & Guthrie, 2001a). Using the accrual accounting methodology to support the preparation of budgetary aggregates in theory means that “full” costs of production are taken into account, with the result that the cost data produced by such a system should be broadly comparable to cost data prepared by potential private sector or other public sector competitive contractors.

Internal markets such as those supported by the adoption of the purchaser-provider model referred to above, ultimately draw their inspiration from the operation of pure, competitive markets. In such markets, transactions are contractual phenomena, in which suppliers agree to provide known quantities of goods or services of a pre-specified quality to buyers, in exchange for a known price. A key objective of the implementation of the accrual output based budgeting system is that all exchanges within the public sector would operate according to a similar methodology, the suggestion being that this would improve transparency, drive down costs and ultimately result in more efficient and effective outcomes.

4 Experiences in Jurisdictions with AOBB Systems

Although central financial agencies in a range of jurisdictions which have implemented accrual output based budgeting systems have made strong claims in support of tangible benefits stemming from such systems, there is in fact a dearth of empirical evidence to support such propositions. As argued above, the key driver of expected efficiency improvements within the context of accrual output budgeting systems is not the accrual element, which is simply an accounting underlay which determines the breadth of costs captured within the system, nor the focus on outputs themselves, since these have been the focus of other (failed) historical budgeting systems.

Rather, the key driver of assumed efficiency gains is the interposition of hard contractually based markets and quasi markets into the budgeting infrastructure. This assumes the existence of institutions capable of forming and monitoring contracts with providers other than traditional incumbents, as well as capable of measuring and managing the new classes of risk which emerge in market based contracting (e.g performance risk and credit risk). The achievement of net efficiency gains as the result of the adoption of a market or quasi-market structure in place of a previously
internalised (non-market) resource-allocation mechanism is premised on a number of vital assumptions often neglected by AOBB proponents.

First, it is necessary that the price signals fed into the AOBB resource-allocation system are accurate and sector-neutral. That is, when a purchaser evaluates the price a potential supplier intends to charge to produce an output or collection of outputs, which, if accepted becomes the cost of the output to the purchaser, it is necessary that there be no systemic accounting induced bias in the price levels able to be offered by incumbent public sector providers and potential non government competitor suppliers.

For this reason, in those jurisdictions where AOBB systems have been implemented, a series of accounting changes which allegedly induce competitive neutrality as between public and private sector organisations are also introduced. The most important of these relate to the need to use accrual accounting so that the full cost of production is captured and reflected in any tendered price required per output. Since full cost includes recurrent and capital cost competitive neutrality principles suggest that public sector incumbents ought to have their accounting systems structured in a way which enforces recognition of these costs.

This requires a recognised asset valuation methodology, as well as a way of proxying for the cost of financial capital, on the assumption that any private sector firm tendering to provide outputs will be seeking to recover, within their quoted price, the full cost of production, including an adequate rate of return on capital. Unfortunately there is a growing body of evidence which suggests that rather than engendering comparability as was the intention, the accounting procedures and conventions forced on public sector organisations within the context of AOBB systems actually reduce comparability, by introducing assumptions and conventions into public sector practice which do not form a part of private sector accrual accounting and costing practice (Carlin, 2003b).

This discrepancy may be partly responsible for the growing realisation by policy analysts that savings expected to follow a decision to “buy private” have been elusive or illusory (Harrington and Pollock 1998). Some commentators suggest that this factor will generally paint a picture of higher public-sector costs which have nothing to do with the competitive characteristics of the public sector (Fearon 2002), and fabricate conditions which make privatisation seem more efficient, thus advancing privatisation through misrepresentation (Newberry 2002).

Second, assume that a market mechanism is known to be a better resource-allocation device than a non-market-based allocation process. Is it appropriate to assume that there is a functional equivalence between a true market mechanism and the mimicry of an AOBB system’s quasi-market order? From a technical standpoint, there are operational and institutional characteristics that set AOBB quasi-markets apart from “true”3 markets. One of these is the fact that accounting procedures, cost of capital and costing processes are standardised in public-sector entities, whereas in the private sector, despite mandatory standards for external financial reporting, no such standards exist for internal costing. Thus a regimented group of entities is pitted against an unregimented set of entities in the AOBB quasi-market, in contrast to true market settings where there is no systematic regimentation.
In addition, the types of market transactions considered integral elements of AOBB and management frameworks may be little more than caricatures of actual market-based exchanges. Robinson (2000) notes that implicit in the official AOBB literature is the assumption that all market exchanges are conducted on a single-period, distributive basis. That is, purchasers are assumed to engage in hard contracting and maximum risk transfer, never relational contracting with joint risk-bearing. However there is a substantial literature suggesting that the inappropriate application of hard-price-based contracting may in fact detract from overall performance and that in many cases, just as in true market exchanges, the best result is derived from joint risk-bearing, information sharing, good faith and flexibility (Crawford 2003, p. 38–9). Therefore, the model of the market implicit in AOBB is not necessarily a useful or accurate reflection of true market exchanges.

Third, consider the assumption that market clearing mechanisms will produce more efficient resource allocation. If an analytical dichotomy proposes that transactions leading to the production of goods or services may be carried out externally (that is, in a market setting) or internally (without the benefit of an external price stimulus), then the question arises of under what circumstances transactions will be cleared through the (external) market mechanism and vice versa.

This question has been a central focus of the theory of the firm for more than four decades (Williamson 1964). Under a theoretical frame indifferent to the locus of production as an artefact in itself, production tends to where it is most efficient. This explains why so many functions which could be undertaken as the result of a series of market exchanges are in fact produced “internally”. On this approach, captive internal production solutions that might have existed in the public sector before the implementation of AOBB quasi-market systems are not necessarily inimical to the achievement of greatest productive efficiency. Further, an extensive literature exists suggesting that there are certain types of goods for which public-sector providers are the only natural, or the most efficient, providers (Musgrave and Musgrave 1988, Stiglitz 1988).

Fourth, most accounts of efficiency gains expected from the introduction of AOBB systems are insensitive to questions of timeframe and gaming behaviour. To demonstrate that adopting AOBB systems will enhance overall efficiency, sustained rather than transient changes to productive processes must be catalysed. Evidence on a single-period basis of monetary saving after exposure to quasi-marketisation does not constitute persuasive evidence of such a transformation. An alternative explanation may be gaming behaviour on the part of private-sector competitors keen to buy market share in production settings previously closed to them. The use of lowball pricing and its importance in explaining apparently significant monetary and efficiency savings achieved as a result of exposing previously internal activities to market or quasi-market testing has been documented (eg, Walker and Walker 2000, Ganley and Grahl 1987).

Fifth, most accounts of the capacity of AOBB systems to improve overall productive efficiency fail to take into account the monitoring and transaction costs associated with the operation of the AOBB quasi-market. These costs are minimised in conditions of internalised production (that is, in absence of a quasi-market system); however, once quasi-market processes are introduced it may be necessary to expend
considerable sums on market oversight, contract construction and enforcement (including litigation) and regulation. This may mean the establishment of specialist policy wings in existing public-sector agencies, or even the creation of new regulatory entities.

Further, contracting with non-sovereign-rated counterparties, as noted above, results in credit counterparty risk and the possibility of bad debts, as well as increased operational risk. The Australian state of Victoria provides examples of the crystallisation of such risks in the form of the financial distress suffered by the providers of rail freight, country train and Melbourne tram services (Myer and Heasely 2002, Hopkins 2003). There is no evidence that current AOBB systems can accurately track these incremental costs back to individual outputs, again raising doubts about the capacity of the systems to deliver overall cost savings.

Thus, given the lack of quantifiable data on implementation cost, and the many respects speculative nature of benefits asserted to arise as a result of the implementation of the implementation of AOBB systems, the pursuit of further detailed research into the experiences in jurisdictions which have implemented these systems appears desirable. That limited quantity of published case study research which addresses this question at present suggests that at very least, implementations of AOBB systems have been more difficult than anticipated, and flawed in many of their basic elements, including matters as fundamental as the appropriate selection and definition of outputs and outcomes (Carlin & Guthrie 2001, Carlin & Guthrie 2003, Carlin 2003c). Given the performance contingencies and resource demands identified above caution should be the guiding principle in any jurisdiction contemplating a move down this path.

5 Conclusion

Accrual output based budgeting systems are complex and resource intensive mechanisms when compared to input focused cash based budgeting structures traditionally used within the public sector. Theoretically, their adoption ought to support the possibility of systemic performance improvements throughout the public sector, but in practice, there has been limited empirical evidence that this has been the result, nor that the costs of implementing such systems have been outweighed by the benefits. Research aimed at further identifying implementation costs and proving the existence of tangible efficiencies is therefore desirable.

The analysis presented above has been largely focused on the nature of hard contractual AOBB models as seen in Australia, New Zealand and the United Kingdom. However, these models do not represent the only forms of output based budgeting possible. Singapore operates a hybrid model in which full accrual cost per unit is not an integral element, and early analysis suggests that this system has been well received and produced tangible benefits (Jones, 2001). This has avoided some of the complexities associated with full accrual models, including the treatment of asset valuation and implicit cost of capital. Nonetheless, it is important to recognise that the chief stimulus to performance improvement within AOBB systems currently implemented is the integration of a market or market like system within the context of a purchaser provider model for government. If such institutions are not seen as desirable, or unlikely to be workable in the context of a particular jurisdiction, the
plausibility of AOB models as key contributors to ongoing performance improvement falls significantly.
References


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