A review of Australian Experiences of Output Based Budgeting: a critical perspective

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1. INTRODUCTION

In the past few decades, the Australia Public Sector (APS) has undergone some of the most significant changes in financial management (Guthrie and Parker, 1998). One recent aspect of this is a changing budgetary regime, and within this a shift towards presentation of public sector budgeting information on an 'output' basis. For instance, governments in New Zealand, Australian Capital Territory, Victoria, Western Australia, South Australia, Queensland and the Commonwealth have all announced reform policies concerning the possible adoption of 'output' based budgeting (OBB). Apart from New Zealand, the other governments are still in the early stages of experimentation with this budgeting technology.

Section two of this paper analyses several key elements of this trend to 'OBB' technologies and technical practices being promoted in the name of 'managerialism', 'marketisation' and 'competition'. The subsequent two sections outline a brief history of traditional government budgeting systems and alternatives to Cash Budgeting Systems (CBS), as well as discussing in more detail recent attempts at OBB. Section 5 outlines several policy and implementation issues concerning OBB. The paper concludes by highlighting several issues worthy of consideration by those who desire to learn more about the state of development of OBB in different government settings.

We argue that the time has come to go beyond generalised statements about OBB and the glossing over of key policy and implementation issues. Our study concludes by calling for detailed independent evaluation of the implementation and processes associated with OBB. Debates about OBB should not be just left to accountants and economists, the perceived budgeting impacts are just too great!

¹ Still the jury is out concerning whether the focus is on "output" or "outcomes". This paper distinguishes between these, but generally the discussion concerns both.
2. THE CONTEXT OF RECENT FINANCIAL MANAGEMENT CHANGE

The 1980s in Australia saw the promotion of 'managerialism' to public sector administration in the name of 'efficiency', 'effectiveness', 'responsiveness' and 'accountability' (Guthrie, 1994a).

The 1990s have seen a continuing promotion of managerialist reforms but with a growing commercial orientation. The introduction of accrual accounting (including accrual financial reporting, "whole-of-government" reporting, accrual management systems and accrual budgeting) represents an important element of the various commercial reforms which have been pursued by governments and central agencies in the APS (Guthrie, 1998). Traditional wisdom had been that cash-based forms of public sector financial budgeting, management and reporting were appropriate.

The demand for performance to be reported in terms of accrual financial information appears to have been significantly stimulated by a number of events. This includes the recent attention of government reforms to competition policy. At the fifth meeting of the Council of Australian Governments (COAG) in April 1995, an agreement was signed which had the explicit purpose of ensuring that Australia would be "economically stronger and more equitable" by the centenary of federation in 2001. The focus of the agreements was a package of legislative reforms endorsing the National Competition Policy recommendations of the Hilmer Report (1993). The Hilmer terms of reference emphasised the necessity of avoiding the possibility of anti-competitive behaviour in Australian markets.
Importantly, however, the combined influence of 'economic rationalism', 'managerialism' and 'competition policy' results in a continual dwindling in the legitimacy of non-economic, non-managerial and non-market based justifications for status, power or control of resources in civil society (Gibson, 1997; Pusey, 1993).

The consequence of such pressures has been a major shift in public administration reform in the 1990s. Now the focus is on cost control and the identification of so-called 'full costs' and 'liabilities'. Agency and program performance are increasingly defined in terms of financial matters and outputs rather than traditional service objectives and policy achievements.

With the election of conservative governments in various states and at the National level there has been a move from 'managerialism' and 'marketisation' to 'contestability'. Several recent official reports on state government performance (Officer, 1993; SACA, 1994) and on federal government performance (NCA, 1996) have recommended the introduction of marketisation arrangements, including contestability (Finance, 1995a) and purchaser/provider arrangements (Finance, 1995b). Various state governments have experimented with purchaser/provider arrangements for Government Business Enterprises, Ministerial offices, hospitals and community health services. Contestability refers to the introduction of competition to public sector activities, not necessarily just from the private sector (Guthrie and Johnston, 1994). These moves to contracting out, privatising and contestability have implications for current financial management changes at the State and Federal levels of government in Australia (see, Guthrie and Parker, 1998). However, the focus of this paper is mainly limited to one aspect, 'Output Based Budgeting'.
3. A BRIEF HISTORY OF CHANGING BUDGETARY ACTIVITIES

This section will briefly explore the antecedents of public sector budgetary information and then provide an overview of current policy attempts to introduce OBB.

3.1. Traditional Government Budgeting Systems

The traditional focus of the governmental budgeting process has been cash. The rationale for this phenomenon is simple. Cash is the resource extracted by governments from the household and corporate sector, and cash is, despite implications to the contrary, the resource governments transform into the goods and services consumed by the public. For that reason, it was appropriate that the discharge of accountability exercised via the budgetary process should have cash as its focus (Guthrie, 1998).

The use of cash based budgeting was questioned in various Australian jurisdictions from the late 1980s onwards, as various pundits claimed that it was a flawed system, due to its inability to measure the “full cost” of Government service provision (see Officer, 1993; SACA, 1993; NCA, 1996).

These criticisms failed to note however, that there is, and can be, only one difference between the recognition of transactions in a cash versus an accrual based system of accountability, that is, the timing of transaction recognition (Guthrie, 1998). Under accrual accounting, the timing of recognition is itself inherently creative though it is more commonly referred to as the exercise of professional discretion, skill and judgement. It is arguable whether the change of timing of recognition which would
be brought about by the introduction of accrual based financial and budgeting systems would actually improve the quality of public accountability. It appears somewhat ironic, in the face of this debate, that the private sector, armed with the devices of accrual accounting for so long, should have, in the wake of the financial turbulence of the late ‘80s, demand an accounting standard which required cashflow reporting in annual financial statements (AASB 1026, Statement of Cashflows).

3.2. Alternatives to Cash Budgeting Systems

A chief criticism of cash based budgeting systems, outlined above, was the inability of the cash model to capture ‘full costs’. This resulted in the movement towards the presentation of budgetary data in a modified 'accrual' format. This usually involved simple transformations of traditional cash based budgets to reflect non-cash items such as depreciation charges, movements in inventory balances, et cetera. For instance, in NSW this had the effect of driving a wedge between disclosed cash payments and the 'cost of services' (cash disbursements adjusted for non-cash items). Theoretically, the recognition of 'full' cost ought to inspire governments and their agencies to seek greater efficiencies in their processes and resource usage. Revelations that for many agencies, the only hint of 'accrual budgeting' came with the passing of a limited number of year end adjusting journal entries, have subsequently raised questions as to whether the mere presentation of numbers in a particular format has actually changed underlying incentives and behaviour.

In fact, the administration of the budgetary process between central agencies (Treasuries) and line agencies has been relatively constant, irrespective of apparent shifts from one paradigm to another. The key interaction between central and line
agencies still revolves around the allocation of cash and monitoring of subsequent expenditure and residual balances. Operating managers still see cash as the key resource to be managed. In substance then, if not in form, the adoption of accrual 'type' budget papers and other related disclosures has not altered the fundamental underlying process.

4. RECENT OUTPUT BASED BUDGETING REFORMS

Various governments in Australasia have recently introduced OBB reforms. For instance, New Zealand, (NZ, 1995; 1996), Australian Capital Territory (ACT, 1995a; b; Wearing, 1997), Victoria (Victoria Treasury, 1996), Western Australia (WA Treasury, 1996), South Australia (SA Treasury, 1997), Tasmania (Tasmania, 1994; 1996), Queensland 1997a; b; c) and, the Federal government (Solnyay, 1997; Knan, 1997).

4.1. Developments in OBB

These OBB reform attempts are predicated mainly on the 'purchaser-provider' model of government (Allen, 1997; Finance, 1995b; Osborne and Gabler, 1993; Guthrie and Petty, 1997). Simply put, accrual output based budgeting is: "a process through which agencies are funded and monitored on the basis of delivery (performance) of outputs which have been costed on a full accrual basis." (Queensland, 1997b, p.17)

Arguments for OBB usually involve aspects of the following elements:

- Customer focused
- Based on supply or services/products
• Separates purchaser and owner
• Reflects full accrual costs
• Gives clear choices to the buyer
• Provides a sound basis for internal resource allocation
• Focuses on outputs and outcomes

This is in contrast to the traditional cash based budgets which focus on inputs and processes, etc (Guthrie, 1994a). Figure 1 highlights a simple functional model and the key focus of each budget systems.

**Figure 1. Simple Functional Model of the Budget Process**

![Diagram](image)

The shift to 'outcomes' has meant a focus on 'outputs', 'prices', 'agreements', 'flexibility in suppliers', and 'performance benchmarking' which form part of the discursive practices that will be engaged in OBB.

In terms of changing activities because of the introduction of OBB, Queensland Treasury (1997a, p.4) state that the following information changes will occur:

• Moving from a cash-based budgeting system to an accrual system;

• funding agencies for outputs (services and products) rather than inputs (resources consumed in their production);

• improving the Government's management of its funding of services (purchaser interest) and its resource base (ownership interest); and
• improving the quality of performance information available to the government and agency managers for strategic planning, resource allocation and operational control.

A key feature of these proposed reforms in government budgeting is the movement to 'resource', 'accrual' or 'funding' system of budgeting which it is argued will provide details about the assets held by the agency, the liabilities incurred by it and clear information on the full cost incurred by the Government in funding the agency's activities will be provided by the accrual system.

In summary, the current group of Treasury OBB reformers are asserting that whereas traditional input based budget systems (cash or modified accrual) do not contribute to organisational improvements, because they do not provide information on the 'cost' of a given output, OBB systems can assist 'organisational improvement' (however this is defined) because they facilitate output costings which will be used for rational budget allocations, control and accountability activities.

In fact, as argued later, it is unlikely that such a distinction exists in reality. Both input and output based budgeting system ultimately measure exactly the same thing - that is, cost. The key difference between the two systems is essentially the way in which 'costs' are disclosed and allocated.

4.2. What Type of OBB?
The debate surrounding appropriate budgeting technologies has been confused by the lack of an appropriate definition for the term 'budget'. Do we mean 'budget' as in the
parliamentary appropriation and accountability process, or do we mean 'budget' in the sense of an internal management tool? This distinction is important, because a budget is a multi-faceted tool. In some settings, budgets are used for control and accountability purposes, while in others, budgets are used chiefly to measure the degree of success with which an organisation is achieving its goals or targets (for example a sales budget), or the degree of efficiency with which an organisation is operating (the measurement of variances from targeted / budgeted cost). This distinction has not been explicitly recognised in the discourse which has surrounded the introduction of output budgeting concepts to the public sector thus far. Rather, it has been presumed that the parliamentary budgetary process serves as a limit or boundary to the wider budget process. The mere fact that 'cost per unit' is not explicitly disclosed on the face of the parliamentary budget papers should in no way serve to indicate that individual agencies are not interested in, or capable of tracking such measures.

Indeed, in New Zealand, where output based (parliamentary) budgeting has been in use for some six years, the budget papers do not reveal 'cost per unit'. Instead, 'output' based budgets look suspiciously like standard 'program' based (input focused) budgets, with 'outputs' representing slightly more finely defined 'programs' than would normally be found on an “input” focused budget document.

In order to analyse the relevance of OBB in further detail, it is expedient at this point to review some key definitions provided by the Queensland Treasury (1997a, p.18; b, p.12).
• **Outcome Definition**

This consists of a number of steps including:

1. Examination of the government policy agenda.
2. Consideration of specific policy objectives - that is, economic, social and other policies.
3. Reaching agreement in relation to these policy agendas with relevant portfolio ministers.
4. Achieving cabinet approval.

• **Output Definition**

This requires a process which might be generalised as:

1. Consider agreed government outcomes.
2. Take stock of agency activities and define in terms of goods and services produced.
3. Formally define outputs and relate them to outcomes.
4. Construct performance measures which measure (amongst other things) quantity timeliness and quality of outputs.

• **Costing and Pricing**

1. Accrual accounting deemed a precondition.
2. Measure 'full accrual' cost of the good or service.
3. Include relevant capital charge.
4. Negotiate a purchase price based on the total costs measured above, and deem this to be the 'efficient price'.
Adding to this various other elements, we can then come up with a generalisable prototype model of OBB for the sake of discussion. This is modelled in Figure 2 Prototype Model of Output Based Budgeting. However, already in technical practice significant differences are emerging!
Figure 2. Prototype model of output based budgeting

- Stakeholder Needs
  - Goals
  - Government
    - Policy
    - Outputs
      - Purchaser Interest
        - Purchaser Interest
          - Outputs 1
            - 1.1
              - 1.1.1
                - Performance Information

- Purchase
  - "Price"
  - "Standards"
  - "Supplies"

- Owner
- Investor
- External Private Supplier
- Dept 1
- Dept 2
5. IMPLICATIONS: POLICY AND IMPLEMENTATION ISSUES

Supporters of output based budgeting argue that its application results in a greater focus on effective management of resources, and the continuous improvement of underlying business processes. Functionally predicated on the purchaser / provider model of government, its wholesale implementation essentially requires a process of contracting between the department (agency - provider) and the ministry (purchaser) to be negotiated and completed. In fact, on a broader level, there is no reason why a government agency need be the only provider. These could be purchased from any party willing to enter into a relevant contract (see, various models in Figure 3).

This form of budgeting essentially substitutes a 'quasi-market' arrangement for the previously internalised process of agreeing and providing goods and services to the community, and as such, is subject to hazards such as market failure, and costly contracting (the cost of writing and monitoring output contracts - particularly relevant where parties external to the public sector are used as providers.)

As an aside, the avoidable cost of these contracting processes is often ignored when making decisions in relation to tendering out - for example, of public sector audits to private sector auditors, since a public sector body will always ultimately hold the responsibility for the timeliness, quality and (where relevant) quantity of outputs (see, English and Guthrie, 1997).

In practice, whether or not the use of 'outputs' contributes meaningfully to the ability of public sector managers to better allocate resources has yet to be proved, however, it depends on the appropriateness of the 'output' as defined. Since the term 'output' can
be highly general (for example - the production of policy advice) or specific (the eradication of blind field mice), the degree of useful information and control generated by the output budgeting process depends on the degree of match between the outputs or output classes selected and the underlying activities of the agency in question.

There are also questions as to whether central agencies might interfere in the definition of outputs for ideological or other reasons. A key example of this is the restatement of all NSW budget sector programs to remove any programs defined as purely 'administrative' or as corporate services. Whereas prior to this restatement, it was possible to determine the cost of non core (support) services as a proportion of total budget expenditure, it is now impossible to do so, and in fact, the stated costs of other 'core' (operational) programs have been distorted by the arbitrary allocation of support costs onto operational program budgets. Note that this distortion would not be reflected in an organisation’s internal budgetary arrangements, but is adopted purely as an external reporting symbol. Likewise, there is no reason to believe that the adoption of 'outputs' as the gaze of parliamentary budget documents should in any way alter the internal budgeting and management processes adopted within line (operating) agencies.

Furthermore, although the adoption of output based budgeting is couched in terms of 'improving government efficiency', the mere measurement of outputs conveys very little about performance. In fact, there would appear to be little difference between the statement "we will spend $20 million on primary teachers salaries next year" (an 'input' styled statement) and “we will purchase primary teachers to the total cost of
The proverbial and aforementioned blind field mouse could no doubt readily ascertain the functional and indeed literal equivalence of the above statements. It appears, that the adoption of output based budgeting, is no more than an accounting 'rephrasing' of information readily available under a traditional 'input' based budget. Rather like the now defunct funds statement, no significant new information is added.

Guthrie (1998) argues against the uncritical acceptance of accrual based information. The NCA (1996) asserted that changes from the sue of cash based statements to accrual based statements reflect a focus on 'efficient and effective outputs and outcomes' (p. 214), yet the NCA failed to recognise the reality that accounting statements are themselves focussed on inputs ('the cost of service'). Outcomes are no more easily measured via the use of accrual financial reports than cash based reporting, and are usually determined on the basis of separate surveys and data collection, for example, customer satisfaction or the state of public health or education, which may not be just stated in financial terms.

5.1. The Wrong Target?

The essential flaw with both input and output focused budgeting systems is that neither concentrates on the end result, that is outcomes, rather, they focus on intermediate processes (see, Figure 1). Yet if the 'budget' is to be used more effectively as a driver of improved operational performance, then it needs to explicitly link inputs, outputs and outcomes. Output budgeting merely focuses on a different part of the operational chain, not on the entire chain, and consequently, will in many respects be no more useful than input budgeting. Reference to existing examples of
'output' based budget documents confirm this basic flaw. While the level of detail associated with the definition and measurement of outputs is often impressive generally, there is as little comment on the linkages to outcomes as in traditional input budget documents. Indeed, ACT 'output' based model described above seems logically flawed in that it places the outcomes before the outputs, giving no recognition whatsoever to the highly variable and reflexive nature of the policy / budgetary nexus.

5.2. Documentation

Concerning documentation the move to OBB has meant major adjustments to the form and format of the key financial documents of the Westminster system. Figure 3 provides an outline of the type of documents that will require adjustment for OBB.

**Figure 3. Rational view of application of Output Based Budgeting to Westminster Appropriation and Accountability System**

- estimates
- budgets
- appropriations
- contracts - 'price'
- internal management systems
- actual against estimated price accountability report
- financial statement (operating statements, balance sheet, cash flows)
- audit, contract review, and evaluation

**What is the new 'gel for this'?**:
- accrual based information
- new 'output' focused performance information
5.3 Further Issues for Consideration

Promoters of OBB (mostly central agencies) have supported it on the basis that it represents a more useful technique than previous input focused systems. OBB (for example) provides a superior feedback for organisational change and development. We in turn have argued that due to its functional equivalence to input based budgeting, significant improvements in public sector efficiency and effectiveness are unlikely to stem from the adoption of such a system. This is a general problem, and not sensitive to the mode of implementation chosen by a particular central agency for OBB. All purely output based budgeting systems suffer from the same problem as input based budgeting systems, that is, they do not provide information on the entire budgetary chain, spanning from input to outcome, but instead, focus on a specific intermediate stage of the process.

Other concerns may stem from the mode of implementation, and hence are not seen as constituting general problems, but rather, jurisdictional specific operational problems. However, given that sweeping changes to financial management made in one jurisdiction are likely to impact on decisions made in others.

An example of a specific operational problem is the Queensland Treasury’s decision that 'a capital charge' must be incorporated into the costing of outputs for the purposes of carrying out output based budgeting. This is consistent with a more general trend towards the measurement of 'full cost' of goods and services funded via the budgetary process. Yet it is a highly problematic concept. There is no consensus on what constitutes an appropriate discount rate for use within the public sector or a particular jurisdiction [Walker (1994), Quiggin (1995), Hathaway (1997)]. If this is the case,
then the adoption of such a technique as part of the process of implementation of OBB could be fraught with danger. While theoretically there ought to be no distortion to the accountability process if the 'right' discount (capital charge) rate were to be used, the potential for misallocation in the event that an inappropriate measure was adopted is obvious.

This is somewhat reminiscent of Walker, Clarke and Dean’s (1997) characterisation of accounting practice in the public sector as more symbolic than a reflection of an identifiable underlying economic reality. As a system of greater complexity evolves, the power to shape perceptions via the accounting process grows, and the ability of the financial information user to perceive the degree to which perceptions are being shaped diminishes.

Questions need also to be raised about the relative costs and benefits of implementing OBB. Presumably a significant investment in information systems, training and staff time would need to be made in order to allow an OBB system to be implemented. At a time when the NSW Council on the Cost of Government has identified the high level of fragmentation, non standardisation and incompatibility of that State’s financial information systems (over 60 in use) (COCOG, 3rd report, June 1997), together with potential savings of approximately $300 million dollars per annum (around 2% of total annual recurrent expenditure) arising from the simplification of financial management, the desire to inject even greater complexity seems a questionable path to tread. Although it is impossible at this stage to measure the likely impact on overall public sector efficiency and effectiveness which brought about by the adoption of a
system such as OBB, the COCOG report sounds a warning note in relation to the cost of complexity.

A range of other questions can be raised in relation to potential implementations of OBB systems. It is not clear for example, how the process of contracting for the purchase of outputs would be managed, nor the level of cost associated with the monitoring and management of such contracts. It is not clear that audit procedures designed to handle the challenges raised by OBB systems would be readily available and implementable. Several other questions emerge: Is it possible that a focus on outputs would remove the pressure to effectively manage inputs? How can a focus on outputs lead to improved outcomes? These represent a limited number of concerns in relation to the implementation of OBB systems. Unfortunately, these are concerns which have not been sufficiently addressed in the reform discourse relating to OBB systems thus far.

6. Summary and Conclusions

Proponents of output based budgeting have asserted that it is a management technology capable of substantially improving the efficiency and effectiveness of the public sector. It is claimed that one reason for this is the superior quality of performance information generated via the output based budgeting system.

We have challenged these assertions on grounds both general to the adoption of OBB systems, and specific to certain implementations. It appears that many aspects of the implementation of OBB have not been fully debated, and that the change to OBB is likely to be an act of symbolism rather than a genuine reform. As with many previous
proposed (and implemented) shifts in public sector managerial practice, there appears to be a significant gap between the extant rhetoric and the reality.

Moves towards OBB have been characterised by a willingness to embrace change, often based on the assumption that pre-existing systems of accountability are in many respects inadequate. Often, there is little evidence that this is the case. Ironically, in the case of calls for the abandonment of traditional input based budgeting, there may be a degree of justification. While cash based (input) budgeting systems have been argued to be a useful tool for the discharge of parliamentary accountability (which may explain the length of their survival despite other obvious shortcomings), they are unable to capture information relating to the entire budgeting process, including, importantly, outcomes. Outcomes may be quantitative, but in many circumstances will be qualitative (i.e quality of healthcare, etc, etc), and hence, exceedingly difficult to measure with tools which concentrate solely on the movements of cash. It therefore seems strange that the next 'great leap forward' travels no further down the route of allowing governments and stakeholders to assess the effectiveness and efficiency of government than the tool which it is destined (in the schedules of some central agencies) to replace it. Neither system is capable of producing full accountability and in depth information on efficiency and effectiveness. Only a system of budgetary reporting which encompasses the entire process from input to outcome will achieve such a goal.

We therefore argue that a far greater degree of public debate and analysis of the impact, costs and benefits of OBB systems is required, before large amounts of public resources are committed to their widespread implementation.
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