

**AN EMPIRICAL ANALYSIS OF PERFORMANCE INDICATOR INVENTORY
VOLATILITY WITHIN A NEW PUBLIC FINANCIAL MANAGEMENT
SYSTEM**

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ABSTRACT

During the 1990s, the nature of general and financial management practices within the public sectors of many jurisdictions underwent significant change. The Australian state of Victoria represents an example of a jurisdiction in which the extent of change was particularly large. In the context of that state's adoption of an output based budgeting and management framework, the development and reporting of performance indicator data became a matter of increased significance in sustaining continuous improvement. This paper reports the results of a study of performance data reported within the Victorian public sector, and highlights problems indicated by high degrees of turnover in inventories of reported indicators over time.

KEY WORDS

New Public Financial Management, Accrual Output Based Budgeting, Performance Indicators

INTRODUCTION

During the 1980s and 1990s, the fiscal, structural, management and financial management architecture of the public sector in Australia experienced considerable change (see, Jones, Guthrie, Steane 2001a, b). In Victoria, Australia's second most populous state, the pace and degree of change was of a particularly high order. In the context of this change, one area of pointed transformation has been the changing technologies by which funding, reporting and monitoring for the budget dependent sector are achieved. A recent aspect of this process of reform has been a changing central budgetary regime, and within this a shift towards the presentation of public sector budgeting information on an 'output' basis. This transition began in the mid-1990s and continues to date (Carlin & Guthrie, 2003).

Recent international comparative studies of public sector financial management reforms (Olson *et. al.* 1998, Guthrie *et. al.* 1999) have found a wide diversity of practice in adoption of New Public Financial Management (NPFM) oriented changes, even across multiple international jurisdictions regarded as active reformers. A significant additional finding from this body of literature is the material role of accounting and other financial management techniques in the implementation of management-oriented change in government. However, it is interesting to note the degree to which some prior international studies have tended to lack detailed analysis of the practical application of such techniques. The approach taken in this paper, reliant on detailed investigation of actual budget sector disclosures, contrasts with the broader approach taken by some earlier contributors to this body of literature.

As indicated, public budgeting in Australia has undergone significant change over the past decade. This change has been manifested in several ways, the most important of which has been the implementation of some form of accrual output based budgeting (AOBB) (Guthrie and Carlin 2000, Carlin and Guthrie 2001; 2003). The shift towards output based budgeting has also been closely associated with the employment of accrual methods in public sector budgeting as a replacement for cash based accounting models. A central part of the new budgeting regime has also been the presentation of non-financial performance information.

These changes have been justified by their champions on the grounds that they will promote greater efficiency, transparency and accountability by governments (Guthrie *et al* 1999). Yet to accept such claims at face value is to ignore the political and rhetorical aspect of public sector budgeting (Wildavsky 1974, 1992, Jones 1997). Just as the adoption of accrual accounting by public sector agencies has been critiqued as the reflection of a rhetorical rather than technically neutral process (Guthrie, 1998), changes in budgeting processes can be analysed critically. Indeed, it has been suggested that predictions of output budgeting's successes have not been matched in reality, hinting at a strong rhetorical aspect to public sector budgeting changes in Australia (Guthrie and Carlin 2000).

Because recent research has identified gaps between the claimed nature and the actual practices of central public sector budgeting (e.g Carlin & Guthrie, 2003), this paper is based on a detailed examination of a set of budget papers to identify and examine the use of performance information within the context of an operational AOBB management system. The key objective of this analysis is to provide insights into the degree to which the production of performance information, as a key element of the AOBB management system, has assisted in the achievement of improved public sector financial management outcomes.

BACKGROUND TO THE CHANGING FACE OF PERFORMANCE DISCLOSURES IN VICTORIA

The main characteristic of the output-management model promoted in Victoria between 1992-99 was the separation of the funder, purchaser and provider roles. The implementation of this model required a number of designated steps, which were supported by well-documented Victorian Department of Treasury and Finance (VDTF) manuals (VDTF 1997 a,b,c). Key elements of this recent reform program have been the adoption of methodologies such as accrual budgetary accounting, together with outcome and output based budgeting and management systems, alternative asset valuation practices and procedures as well as systems designed to capture the full cost of capital deployed in relation to the production of particular outputs.

Central to the output management process from a financial management perspective was the conceptualisation of linkages between funding, reporting and monitoring of defined outputs to government strategic priorities and outcomes (VDTF 1997b, p. 42). In the current Victorian public administration model, portfolio 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” (VDTF 1997a, p11). 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), though critics point to the accountability difficulties raised by such a process, particularly in relation to the implementation of effective checks and balances on participant profitability and quality of service delivery (Lapsley, 1993).

Some early evaluations of the application of AOBB systems in Victoria are now emerging, one key identified concern being the high degree of flux in the structural characteristics of AOBB systems in place, with deleterious consequences for both the quality of management information and external accountability (Carlin, 2003a). In a

similar vein, at least one Parliamentary Committee (VPAEC 1998) has expressed some concern that the current reform direction is ignoring public accountability. This is a theme that the VPAEC (1997, p.7) has been expressing for some time:

“Accountability is a contract between two parties. In the case of government, the contract is between the public and the government: the public gives government responsibility to govern and manage public resources, and the government is accountable to the public through the Parliament for its performance. It is a concept fundamental to our democratic system. It clearly establishes the right of the people both to know what government intends to do, and how well it has met its goals.”

That this concern has been raised, despite the growing quantity of financial, non-financial and performance related disclosures provided by a variety of communications mechanisms, speaks volumes. In particular, it raises questions about the quality of disclosures being provided - quality, rather than quantity, being the dominant hallmark of effective accountability processes.

PERFORMANCE INDICATORS AND BUDGET PAPERS

The radical changes to public financial management techniques and institutions discussed above also brought about significant changes to the format and content of financial and non financial information reporting. A central feature of the official position relating to public financial management has been that departmental performance and accountability ought to be viewed in output terms (as expressed in accrual financial statements and performance indicators) rather than in input terms. This shift has in turn privileged the role of accounting, which has moved from a subordinate service role to a dominate, agenda-setting role (Parker and Guthrie 1993). In particular, these ‘new’ accounting technologies are said to offer the possibility of according greater decision-making authority and flexibility to managers, while also helping to ensure that management action is in accordance with the broader social and economic objectives of government (VDTF 1997a,b,c).

Vitaly, advocates of these new public financial management techniques argue that they are causally related to subsequent public sector performance improvement. Meaningful performance improvement, it is argued, stems from the adoption of a reflexive output / outcome based approach to management and budgeting, an approach which by its very nature necessitates the production of increased volumes of performance based data. This data is in turn responded to by managers in a circular process of continuous improvement, leading to efficiency and effectiveness improvements (MAB, 1997).

Consequently, a central feature of the official rhetoric relating to this transformation has been that output performance indicators hold the key to the provision of greater government accountability and better decision making about resource allocation, planning and management practices. Associated with this aspect of the rhetorical NPFM campaign has been a growing emphasis on the production and dissemination of a

growing inventory of non-financial and other performance related metrics and information in fora traditionally reserved for narrower, highly financially focused content.

One such forum is the annual budget paper series published in jurisdictions such as Victoria (and most jurisdictions with broadly similar governmental and governance arrangements). Indeed, annual budget papers are generally regarded as a primary vehicle by which budget dependent agencies can communicate accountability information to the parliament and by which they can be held to account in the following year of operations. This accountability process incorporates financial and non-financial as well as performance information.

If a narrow conception of accountability, in which information is disclosed only in order to report (Normanton 1971) is rejected, then it follows that a part of the role of accountability disclosures is also to explain (Patton 1992). There seems little reason to believe that the narrow view substantially guides the theoretical underpinnings of accountability regulatory regimes in Australia (MAB 1993). Rather, if a decision usefulness perspective is applied, the inclusion of data and information surplus to basic financial disclosures can be seen to be of great significance to interested stakeholders. Indeed, it may be that the value of financial disclosures is lessened in the absence of supporting non-financial disclosures (Barton 1999).

The debate therefore, is not as to whether financial disclosures ought to be accompanied by non-financial disclosures, including those relating to performance indicators, but rather the content, nature and quality of those non-financial disclosures. Empirical studies have highlighted the demand from report users for qualitative and quantitative non-financial information to accompany financial disclosures (Van Daniker and Kwiatkowski 1986). Of key contextual importance, however, is the recognition that whereas the structure, form and content of financial disclosures is regulated according to a relatively prescriptive model (Micallef 1997), no such prescription generally exists in relation to non-financial disclosures. These therefore tend to show considerable diversity (Hyndman and Anderson 1995). Ideally however, in the context of the public sector, performance indicators should assist users of reports in understanding the inputs, outputs, outcomes and policies relating to a particular period of time (Stewart 1984).

Annual reports issued by public sector agencies have been the focus of considerable attention and research (Cameron and Guthrie 1993, Guthrie 1993, McCrae and Aiken 1994). This reflects the assumed importance of agency annual reports as a component of the overall accountability framework (JCPA 1989, VPAEC 1999a). Increasingly, however, the suggestion has arisen in the literature that public sector agency reports are not as widely used or sought after as is conventionally assumed to be the case (Gaffney 1986, Engstrom 1988, Hay 1994, Mack *et al* 2001). On the other hand, Budget papers are produced with a clear constituency in mind (Carlin and Guthrie 2001, Guthrie and Carlin 2000), a phenomenon which has continued over an extended period.

Thus it is also appropriate that studies of public accountability processes draw upon budget papers and related documentation as an important source of primary evidence.

Wanna, *et al*, (2000, p.1) state that “Budgets are indispensable to executive government; and accountable budgetary processes are a key mechanism of stable, democratic societies.” Although the delivery of accountability to parliament has been the key role performed by budget papers, the format of those budget papers has changed significantly in Australia since the mid 1990s. This wave of change was brought about by the introduction of accrual and output based forms of budgeting in Australian jurisdictions.

Previous studies have challenged the introduction of accrual accounting generally, (Guthrie 1998) and specifically as it relates to the budget process (Carlin and Guthrie, 2001, Guthrie and Carlin 2000). In attempting to evaluate the various public management initiatives now being implemented across Australia, New Zealand and the globe, in most cases it is too soon to answer the questions "what works, what doesn't, to what extent, in which contexts, and why? (Jones *et al* 2001). However, in relatively mature examples of NPFM-oriented reform (e.g., several Australian states and New Zealand), adjustments and considerable steering is evident.

It can be said that any significant experimentation with new forms of performance indicators will lead to discontinuities and issues of monitoring. If this is so, it must be asked: When does a system settle down? How long does one have to wait to get it right? Can this aspect of NPFM ever be seen to be able to deliver the claimed benefits? These are all difficult questions to answer. In the Victorian case, is a decade of performance information enough for practice to be ‘settled’?

Other jurisdictions are experiencing similar disjunction and problems with these practices. The Victorian experience is therefore instructive, as Victoria has been considered to be a leader in the adoption of Accrual output based budgets and output based management in Australia. Carlin and Guthrie (2001) examined recent efforts in the Australian and New Zealand public sectors to implement accrual output-based budgeting. While agreeing with the need for public sector accounting reform, the authors used two detailed case studies – that of Queensland and New Zealand - to show that the current reforms have not yet achieved the results expected due to weaknesses in implementation. The gap between rhetoric and reality is apparent, for example, in that *de facto* there is little real difference in reporting between cash-based and accrual budgets in these two cases, leading these authors to question the degree to which management practices can change if reporting for decision making is unaltered. It is posited here that such a rhetoric – reality gap may also be a systemic feature of the manner in which performance based information is reported in annual budget paper series.

This is a factor of significance, since alongside the change to accrual output based budgeting came calls for the inclusion of greater quantities of performance related information. The function of this information is “officially” to better assist users in determining whether or not claimed efficiencies relating to management improvement programs had been achieved, and to allow more accurate gauging of the efficiency and effectiveness of publicly funded endeavours (VPAEC 2000, VPAEC 2001). This has culminated in a situation where, in contemporary budget papers, the quantity of non-financial and performance indicator disclosures outweighs the quantity of financial

disclosures. For instance, an indication of this trend is presented in Table 1 below, which documents the growth in the relative level of disclosure of performance indicator data, compared to disclosures of traditional financial data in Victorian budget estimates papers from 1998/99 to 2001/02¹.

Table 1 – Performance Indicator to Financial Information Ratio, Victorian Budget Estimates, 1998/99 vs 2001/02

Department	Performance Indicator To Financial Information Page Ratio 2001 / 02	Performance Indicator To Financial Information Page Ratio 1998/99
Education	3.33:1	2:1
Human Services	5.66:1	2.11:1
Infrastructure	4.57:1	2:1
Justice	5:1	2.87:1
Natural Resources and Environment	5.66:1	3.66:1
Premier and Cabinet	2.5:1	2.25:1
State and Regional Development	3.71:1	3:1

The simple fact that a range of performance indicator data has been disclosed in Budget papers does not mean that the disclosures have resulted in an enhanced comprehension capability on the part of budget paper users. Given the primary parliamentary accountability role fulfilled by the production of annual Budget paper series (VPAEC 1999), an important research question centers around the degree to which the inclusion of this performance indicator data can be seen as enhancing the quality of accountability discharged as a result of the publication of Budget papers. In this paper, the preferred methodological approach to achieving this task is to concentrate on the primary source data (Broadbent and Guthrie 1992) within the budget papers (Shaoul 1997, Edwards and Shaoul 1996), rather than undertaking analysis of (in this case limited) secondary sources on the matter.

EMPIRICAL INVESTIGATION OF PERFORMANCE INDICATOR DISCLOSURES IN BUDGET PAPERS

Table 1 (above) outlined the changing ratio of disclosure between non-financial performance indicators and traditional financial data. An alternative means of capturing the increase in volume in performance indicator data disclosures is to examine the absolute number of performance indicators disclosed by Departments. Table 2 (Departmental Performance Indicator Counts in Budget Papers) shows this data, and demonstrates that in the case of most departments, there has been significant growth in the quantity of performance indicator disclosure since 1999. The overall growth in performance indicator disclosure over the three year period studied was 33.1%.

¹ The ratios within the tables are calculated on the basis of page counts.

Table 2 – Departmental Performance Indicator Counts in Budget Papers

Department	1998/99	1999/00	2000/01	2001/02	% Change 98/99–01/02
Education	138	131	176	165	19.6%
Human Services	150	143	206	258	72.0%
Infrastructure	136	158	265	282	107.4%
Justice	204	184	207	227	11.3%
Natural Resources and Environment	273	268	256	282	3.3%
Premier and Cabinet	155	150	192	131	-15.5%
State and Regional Development	184	225	254	280	52.2%
Treasury and Finance	159	147	265	237	49.1%
Total	1399	1406	1821	1862	33.1%

Growth rates varied from this average in individual departments, the highest rate of growth being experienced in the Department of Infrastructure, whose performance indicator count appears to have increased by 107% over the four year data horizon. Over the same period of time, the Department of the Premier and Cabinet actually reduced the number of performance indicators reported on in its budget paper series. This data suggests a prima facie commitment to disclosure quality enhancement by means of increased performance indicator disclosure.

While on the one hand an overall increase in the volume of disclosure may appear to be a positive phenomenon, this view of the data is partial, since it does not take into account the effect of deletions and additions to the set of output groups. Thus, in the extreme, it is possible that from one period to the next, the same total number of performance indicators might exist, but simultaneously that no single performance indicator in existence in the second period existed during the first period. Therefore, in order to gain deeper insights into the question of stability, it is necessary to examine the structural properties of the data from two further dimensions. The first of these is “survival”, which measures the degree to which performance indicators are persistently reported through time². The second is “novelty” which measures the degree to which the inventory of

² It is necessary to address the question of “survival” with great care. From time to time, new forms of terminology are introduced to describe what is in point of fact a pre-existing “object”. Therefore, during the conduct of this study, “survival” was not defined in a strict sense. That is, objects under scrutiny were coded as having survived even if there were moderate changes in official descriptions of the objects over time. Only where it was clear that an object had been cleanly deleted was a coding of “non survived” generated. Methodologically this was an important control, since to take a literal approach to coding

performance indicators observed as at a particular point in time has been infused with new components when compared against some benchmark time referent³.

It is possible to measure “survival” on a cumulative and period on period basis. In the former, survival is tracked by identifying the performance indicators used in some year subsequent to a base year (in the case of this research 1998/99) which existed in the base year, this surviving number then being expressed as a proportion of the total set of performance indicators in existence in the base period. This measure is useful for identifying directional trends in time series data, and in expressing total excursion from base point. However, it is of less assistance in explicitly identifying individual periods during which unusually high (or low) degrees of change have taken place. For this reason it is also necessary to have regard to period-to-period (non cumulative) survival, in which the same basic calculation as for cumulative survival is performed, but the look-back period is limited to one year.

Since attrition is not the only cause of changes in performance indicator inventories, in order to develop a more complete perspective on structural change it is also necessary to have regard to the degree to which new output groups are added over time. This aspect of structural change is labelled “novelty”. As with “survival”, “novelty” is calculable both on a cumulative basis and on a period-on-period basis. The former calculation proceeds as follows. First, a base period is specified (in this case 1998/99) and the performance indicators existing at that time catalogued and inspected. Then, for any subsequent chosen period, the performance indicators existing as at that subsequent point in time are inspected and categorised according to whether they were in existence in the base period or not. Finally, the number of performance indicators observed to exist in the subsequent period which had also existed in the base period is expressed as a proportion of the total number of performance indicators in use in the subsequent period.

Cumulative novelty rates measure the total degree of change between a selected year and the base year, but do not explicitly pinpoint individual periods of heightened change, hence the calculation of period-to-period (non cumulative) novelty rates by determining the proportion of a given year’s performance indicators which are new compared against the set of output groups which existed in the immediately previous period.

Data pertaining to novelty provides incremental insights over and above the insights provided by reference to survival alone. This is because novelty is not the mere reciprocal of survival. That is, it is not possible to infer the novelty rate on the basis of the observed survival rate, and vice versa, because whereas the denominator in calculations of survival rates is always the number of performance indicators which existed in the base year, the denominator in novelty rate calculations is always the total number of performance

survival versus non-survival would incur the risk of underestimating survival rates and thus jeopardising the strength of any conclusions reached on the basis of the data analysis.

³ It was necessary to take similar precautions with respect to the coding of “novelty” as it was in respect to the coding of “survival”.

indicators in some specified subsequent period. As a result, measured survival and novelty rates are such that they are bounded by zero and one hundred percent⁴.

The final analytical tool used for the purposes of measuring the degree of structural variation in disclosures is the calculation of a composite change score. This unites information pertaining to both its underlying dimensions, namely survival and novelty, and indicates the highest degree of overall change when both dimensions are moving in tandem. Thus, a disclosure structure will be judged to be undergoing a greater overall degree of change when low survival rates are combined with high novelty rates than, for example, when both low survival and novelty rates are jointly observed.

Calculation of the composite change index proceeds as follows. First, period-to-period survival and novelty rates are produced. Next, since it is necessary to measure change directly, the reciprocal of each observed survival rate is calculated⁵. This is summed with the novelty rate⁶, producing a raw score whose maximum theoretical value is two hundred, and whose minimum theoretical value is zero. For ease of analysis, this is then divided by two, retaining the even weighting attributable to each underlying change dimension, but producing a final composite change score bounded by zero and one hundred. A score of zero for a particular period indicates that the structure observed in the test period is exactly the same as in the previous (comparison) period, while a score of one hundred represents complete period-to-period change.

This paper reports the results of a detailed analysis of the survival and novelty rates for performance indicator data produced by two Victorian government departments, education and health, between 1998 / 99 and 2001/02. The initial period for which data was gathered for the purposes of this study was selected to coincide with the adoption of a new structure for budget management and reporting by the Victorian government during that year (Carlin, 2003a; 2003b). The choice of target agencies for analysis was dictated by their materiality relative to other core government agencies⁷. In order to conduct the analysis, it was necessary to inspect and analyse the 1367 performance indicators reported by the two agencies in aggregate, between 1998/99 and 2001/02⁸.

⁴ This is a useful numerical property from the point of view of interpretability. If, rather than measuring novelty rates in the manner specified above, the calculation's denominator was base year output groups, then were sufficiently large numbers of new output groups to be introduced in a particular period, novelty rates could exceed 100%, a result less amenable to interpretation (due to being unbounded at the upper end) than the bounded rates produced under the current calculative configuration.

⁵ The survival rate infers the degree of change, but is not itself a change vector. However, the reciprocal of survival, which might be dubbed the "death" rate does provide a direct measure of change. It is the literal mathematical reciprocal of the survival rate.

⁶ Which does represent a direct change measure.

⁷ According to Victorian Budget Paper 3, 2002, these two departments represent 60% of the total budgeted recurrent expenditure. They therefore represent the most material component of budgeted expenditure.

⁸ This results in the conclusions drawn from the analysis being based on inferences derived from a sample. However, given that in aggregate, the eight Victorian core government departments reported 6488 performance indicators between 1998/99 and 2001/02, it was impractical to conduct detailed analysis on each reported indicator. The sampling rate achieved as a result of analysis of all Education and Human Services indicators was 21% of the aggregate number of indicators reported by all departments across the four year analysis period.

The results of the analysis are presented in a series of three tables set out below. Tables 3 and 4 provide data on cumulative and non cumulative survival and novelty rates respectively, within the Victorian Department of Education and the Victorian Department of Human Services. The data reveals a striking degree of turnover in the inventory of performance measures reported by the two agencies the subject of analysis. In the Department of Education, less than a tenth of the indicators reported on in 1998/99 were still reported three years later, while in the Department of Human Services, the corresponding level of cumulative survival sat at around one third.

Table 3 – Cumulative & Non Cumulative Survival Rates – Education & Human Services

	1998/99	1999/00	2000/01	2001/02
Education – Cumulative	N/A	42.1%	23.6%	7.8%
Education – Non Cumulative	N/A	42.1%	64.2%	50.0%
Human Services – Cumulative	N/A	45.2%	41.1%	36.9%
Human Services – Non Cumulative	N/A	45.2%	74.4%	65.5%

The non cumulative survival rate data presented in Table 3 also demonstrates that the annual rate of indicator mortality continues at a high level, even several years after the implementation of the new reporting structure in 1998/99. This raises questions as to the degree to which the rate of observed change can be explained by suggestions of “bedding down” the system. The novelty rate data in Table 4 below reinforces these impressions.

Table 4 – Cumulative & Non Cumulative Novelty Rates – Education & Human Services

	1998/99	1999/00	2000/01	2001/02
Education – Cumulative	N/A	56.0%	76.9%	91.2%
Education – Non Cumulative	N/A	56.0%	34.2%	43.2%
Human Services – Cumulative	N/A	43.6%	54.8%	62.5%
Human Services – Non Cumulative	N/A	43.6%	32.2%	35.6%

By encapsulating the survival and novelty rate data into one composite change score, it is possible to track, on a period by period basis, the extent to which the composition of the entire departmental performance indicator inventory has changed. Although the degree of change suggested by this index appears lower at the conclusion of the time series than at the commencement, it nevertheless reveals that the degree of overall change in reported performance information sets has continued to change at a very high rate.

Table 5 – Performance Indicator Composite Change Index Score

	1998/99	1999/00	2000/01	2001/02
Education	N/A	56.95	35.0	46.6
Human Services	N/A	49.2	28.9	35.1
Mean Score	N/A	53.1	31.9	40.8

For the Department of Education the data suggests a complete change in reported measures every two years, while for the Department of Human Services, the interval approximates three years. It is very difficult to reconcile such rapid turnover in performance indicator inventories with the nature and mission of the organisations studied, especially given the strategic programs managed by both these departments, and the long term nature of the targeted outcomes (for example in school completion and retention rates, literacy and numeracy levels, public health outcomes, levels of post-operative infection and so on). The quantitative analysis performed therefore suggests a lack of quality in the performance data reported within the Victorian system, with potentially deleterious effects for the quality of management outcomes.

SUMMARY AND CONCLUSIONS

The empirical review of performance indicator disclosure in recent Victorian budget papers over four budget cycles reveals considerable turmoil in indicator disclosure. This runs contrary to the goal of enhancing the quality of disclosures in budget papers, because users are often, by reason of high turnover, unable to observe time series results. Furthermore, when new indicators are added to budget papers, it will often be the case that no data relating to actual outcomes with respect to that indicator will be available for up to two years after the indicator is first reported. Given the low survival rates noted in the empirical analysis, this means that in many cases, no actual data is ever reported in respect of performance indicators. Instead, during the (often brief) period of their survival, the only reported data is in the form of targets. An inability to compare actual outcomes with targeted outcomes is a fundamental flaw in any system of accountability. Likewise, the inability to construct consistent performance time series represents a serious weakness in the current budget accountability regime in Victoria.

These difficulties should be viewed in light of the technical characteristics of the reform process and model outlined above. Specifically, recall that a key claim made in relation to

the operation of the accrual output based budgeting and management model is that it is a causal trigger for enhanced agency and sector performance. That causal link, however, rests on the structure provided by reflexive performance feedback generated with respect to the linkages between inputs, outputs and subsequent outcomes. The empirical analysis conducted within this paper suggests, however, that the information performance bridge necessary for the sustenance of the reflexive improvement process, discussed above, is consistently and systematically broken, as a result of performance disclosure inconsistency.

This paper has not speculated about the causes of the apparently high turnover, low survival and high novelty rates of performance indicator disclosures in Victoria over the period under consideration. A hypothesis proposed elsewhere in relation to annual report disclosures suggests that disclosure variability may be related to a desire on the part of report preparers to obfuscate (Curtis 1998). Explanations of variation in the budget papers examined tended to suggest that changes were based on a desire to improve the extant performance indicator inventory, to provide an enhanced view of the underlying operations, efficiency and effectiveness of Victorian government agencies. At present there appears no reason to prefer either explanation, and this may offer an opportunity for further research in the future. However, irrespective of the inability to reach conclusions as to the cause of the high performance indicator turnover observed, there is no difficulty in concluding that at least at present, the quality of disclosure has suffered as a result of the observed lack of disclosure stability, as well perhaps as a result of the lack of a systematic audit quality control framework in Australian jurisdictions. Resolving this problem represents a significant challenge for policy makers and practitioners.

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