Governance Partnership Facility Trust Fund Project
Bottom-up Costing for Medium Term Expenditure Frameworks in Brazil and Indonesia

Review of International Practices for Determining Medium Term Resource Needs of Spending Agencies*
Output 2 Final Report
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FOREWORD

This volume presents two research reports carried out with the objective of advancing practical knowledge in costing and use of cost information in the public sector. Both reports were carried out with support of the Governance Partnership Facility Trust Fund and in partnership between the Brazilian and Indonesian country offices of the World Bank.

The first report aims to review international practices for determining medium term resource needs of spending agencies (what is also referred to as ‘bottom-up costing’ for Medium Term Expenditure Frameworks). The principal objective is to compile comparative information on practices and methodologies used by selected OECD countries to determine program costs as part of their medium term expenditure planning.

The second report details the experiences of three selected subnational governments in Brazil: São Paulo, Rio Grande do Sul and Pernambuco with the development and use of cost information. The main objective is to present comparative information on practices adopted by these jurisdictions. It is expected that this volume helps to fill a gap in the technical literature by presenting practical examples of the development and use of cost information within budgetary and fiscal planning frameworks in advanced and developing countries both at the national and subnational level.
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The analytical distinction between conventional costing practices and forecasting practices is instructive.

Cost information (for new policy) is mandated, but costing methods are only recommended.

Case study institutional summaries

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Executive summary

This report reviews international practices for determining medium term resource needs of spending agencies, what is also referred to as ‘bottom-up costing’ for medium term expenditure frameworks (MTEFs).

The MTEF is a set of institutional, policy and legal arrangements that use multiyear estimates of revenues and expenditures to account for the consequences of current year budget decisions; as such, it is an integral component of more strategic budget preparation and fiscal planning. From a macro-fiscal perspective, MTEFs are important because they incorporate the multi-annual nature of the fiscal policy into the budget process, mitigating the short term bias of the annual budget process. They also allow for the full incorporation of the effects of policy decisions and provide for a more comprehensive fiscal sustainability picture.

The effectiveness of the MTEF in these roles is dependent on the accuracy of spending ministry cost estimates for existing and proposed programs. Good bottom-up costing lends more credibility and legitimacy to the process. They also constitute an important step towards more performance informed budget processes. However, there are significant gaps in our current understanding of how costing and cost information is implemented within MTEFs.

The objective of the report therefore is to assemble information on practices used in four OECD countries – Australia, Austria, Canada and the Netherlands – to determine program costs as part of medium term expenditure planning, and to provide preliminary observations on the strengths and weaknesses of current arrangements. In order to do this, the report makes an analytical distinction between general guidelines on methods for program costing, and ‘costing’ requirements for forecasting and estimates construction in support of medium term expenditure planning.

The overall findings of the report are that current costing practices, as well as their integration with MTEF budget processes, fall short of the declared design objectives of MTEFs, and that as a threshold consideration there is a need to clarify and strengthen the role of spending ministries in cost estimation for baseline expenditures.

The report makes some specific observations on the status of program costing practices within the MTEFs of surveyed jurisdictions. These are set out in Part 6 and indicate:
• whilst there is no typical MTEF, some features tend to be more compatible with a greater role for bottom-up costing – costing was relatively more systematised within the ‘indicative MTEFs’ operating in Australia and Canada, where there was also a strong policy commitment to consistency in program specification

• where they are specified, costing practices are generally expected to be used across the entire budget, but in practice the focus is overwhelmingly on new or expanded programs – costing practices are routinized in neither Austria nor the Netherlands, whilst in Australia and Canada, where costing guidelines are issued, the emphasis on new spending means that ‘bottom-up’ costing is not routine for the base

• the capacity to distinguish existing and new programs is important in utilizing cost information – the distinction underpins the ‘rolling baseline’ MTEF in Australia and Canada even though in practice approved new program spending is often subsumed into the base, and is less important in Austria and the Netherlands where the emphasis is more on managing expenditures within fixed ceilings

• the distinction between conventional program costing and forecasting helps to explain differences in costing approaches – in all jurisdictions program costing is seen as a spending ministry responsibility but within the MTEF these practices are framed by forecasting methodologies, and one of the key differences is the costing role of independent fiscal forecasters in Austria and the Netherlands

• where they are specified, costing methodologies are recommended but not mandated – in Australia and Canada cost templates are required for presenting cost information in the MTEF budget process but the basis of costing (the methods and program specific assumptions used) are left principally to the discretion of spending ministries.

Following an introductory section explaining the project and its background, the report is organized into six substantive parts. Part 2 defines and describes the role of MTEFs. Parts 3, 4 and 5 survey the key themes in costing approaches within MTEFs, covering institutional, legal and policy arrangements for MTEFs; policies and practices relating to program specification and program costing methodologies; and MTEF budget and forward year cost estimates practices. These parts use a common structure that sets out shared and country-specific features across the four survey jurisdictions. Each part includes a précis table of jurisdictional responses. These parts draw on, and should be read in conjunction with, the institutional case summaries for each jurisdiction that appear in Part 7.
1. Purpose and scope of review

This part will:
- provide an overview of the objectives, key questions and methods of the review
- identify the nature of key gaps in the technical literature on the operation and implementation of medium term expenditure frameworks (MTEFs)
- define important operational terms and concepts.

1.1 Background

The World Bank has received funding from the Governance Partnership Facility Trust Fund to advance knowledge on practical aspects of the implementation of medium term expenditure frameworks (MTEFs).

In this context, the Latin America and Caribbean, and the East Asia and Pacific, regional units of the Bank have initiated the Bottom-up Costing for MTEF in Brazil and Indonesia Project (‘the Project’) to support the improvement of program costing practices in Indonesia and selected sub-national governments in Brazil.

The aim of the Project is to review international practices for determining medium term resource needs of spending agencies (what is also referred to as ‘bottom-up costing’ for MTEFs). The principal objective is to compile comparative information on practices and methodologies used by selected OECD countries to determine program costs as part of their medium term expenditure planning. The selected case study jurisdictions are Australia, Austria, Canada and the Netherlands.¹

This report assembles case study data on costing practices for MTEFs and provides some preliminary observations on the strengths and weaknesses of current arrangements, as well as the status of costing within conventional understandings of MTEF guidance. These observations suggest that current practices fall short of the declared design objectives of MTEFs, and that as a threshold consideration there is a need to clarify and strengthen the role of spending ministries in cost estimation for baseline expenditures.

The focus of this Project is on the costing of budget programs as opposed to other approaches with different costing objects. Therefore, the methodology and the findings presented here are

¹ The rationale for case selection is explained in Section 1.5, below.
much more of a managerial perspective rather than a pure cost accounting one. Nevertheless, most practical questions are common to both views, thus making this report of use to both cost accounting experts and policy makers.

1.2 **Key issues and research methods**

The scoping study for the project identified two key issues that were to frame the report and its approach. The first relates to the current treatment of MTEFs in the public financial management technical literature and the way this tended to emphasise general design principles rather than the practical detail of implementation (this is especially the case in respect of technical assistance to transitional and less developed countries). The second issue revolves around the interaction between general guideline methods for program costing that finance ministries have issued for use by spending ministries and the specific requirements for costing that finance ministries employ to standardize program costs for use in preparing forward estimates of expenditure.

1.3 **Cost practices for MTEFs: A gap in the technical literature**

The first issue suggests highlights the importance of the way the design of MTEFs ‘scaffolds’ into their implementation. Good practice guidance relating to MTEFs asserts the importance to medium term budgeting of rigorous program costing by spending ministries (usually in the absence of describing these practices in any useful detail), and the disciplinary function of top-down expenditure ceilings. Two recent international surveys of MTEF experience help to illustrate the tension.

The first review is sourced from the World Bank and assesses the comparative effectiveness of MTEFs (World Bank 2013). The report emphasises that an ‘effective MTEF’ depends on spending ministry capability to ‘cost programs’ using the ‘best available techniques for costing’, and that in preparing medium term budget requests spending agencies should ensure coverage of the ‘cost of current and new activities’ (World Bank 2013, 25). The relevant techniques are principally those of ‘cost analysis’, which ‘identifies existing and announced programs and estimates program costs on the basis of projected developments in these cost

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2 Often this is because in these countries some of the key prerequisites for MTEFs are either absent or rudimentary. These conditions include budget outturn close to original budget, clear distinction between existing and new programs, and well-developed implementation plans that allow spending ministries to explain incremental adjustments (see Oxford Policy Management 2009).

3 Key terms, such as ‘finance ministry’ and ‘spending ministry’, are defined later in this chapter.
drivers’ (World Bank 2013, 65). In this context, of course, finance ministries will often establish systems that are designed to thoroughly test both the accuracy and reasonableness of program and cost information presented by spending ministries. In summary, the report emphasizes that an MTEF usually comprises three sequential stages that (a) set initial allocations to ministries in accordance with top-down resource envelope, (b) consider spending ministry estimates of their resource requirements for continuing and new activities, and (c) determine the medium term resource needs of spending agencies before finally agreeing on the expenditure allocations (World Bank 2013, 17-18). To a large degree, current PFM literature appears to lack guidance on how to conduct the ‘bottom up’ costing which is the second step.

The second, broader survey comes from a recent International Monetary Fund review of public financial management reforms (Harris, Hughes, Ljungman and Saterialie 2013). This lists better understanding of ‘policy cost drivers’ among the technical benefits of a medium term budget framework and emphasises, in the context of budget prioritization, the need for ‘a clear separation between the cost of maintaining existing policies and the cost of new policy initiatives in budget documents, based on an unambiguous and widely accepted methodology’ (Harris, Hughes, Ljungman and Saterialie 2013, 139, 156). There is, however, no further elaboration on what types of costing practices might inform the methodology, who should be undertaking the costing or where in the process such cost information should ideally be brought to bear.

A primary objective of the project therefore is to help address aspects of this gap by collating comparative information on costing practices and methodologies across a range of OECD countries. It is an assessment of specified MTEF practices in depth rather than frameworks in breadth (the rationale and methods for costing practices); and employs the case study approach to provide a rich analysis of the intent and scope of costing practices in order to illustrate.

1.4 Distinguishing program costing and fiscal forecasting practices

The second issue relating to the interaction between program costing and forecasting practices is critical because it suggests that for analytical purposes it is necessary to

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4 It is also worth noting that in commenting on the sequence of policy, budgeting and technical enablers of MTEF implementation, the World Bank considers that a system of program costing is the prerequisite for a second stage medium term budget framework, whereas fiscal forecasting is the basic requirement for a first stage medium term fiscal framework (World Bank 2013, 76-77).
distinguish between two sets of practices: general guidelines on methods for program costing and the development of costing systems on one hand, and on the other hand requirements for costing that are specific to determining program costs in support of medium term expenditure planning. The first set of practices cover sector-wide guidelines that define cost concepts, methods of cost allocation, the relationship between costs and program classifications for budget expenditures, cost management and the construction of cost information systems. Such guidelines are usually directed at standardizing the costing methodology (and cost object) definitions, improving the accuracy of basic cost information and supporting capability development across the public sector (see, for example, New Zealand Treasury 1994, Victoria Department of Treasury and Finance 1997, New South Wales Treasury 2007, Treasury Board Secretariat of Canada 2008).

The second set of practices cover a range of requirements that ensure comparability across program costings for use in budget formulation processes and forecasting methodologies for projecting forward estimates of expenditures (and, increasingly, in procedures for independent costing of political party policy commitments during election periods) (see for instance, within a surprisingly limited literature, Vasche, Williams and Ingenito 2008; Mikesell 2011). Such requirements are commonly directed at ensuring consistency in (or the consistent application of differential approaches to) economic parameters, cost base assumptions and price adjustments over the forward year expenditure planning period.

5 Consistent application of program costing methodologies is essential to generating more accurate cost information to support resource allocation and management decision-making. At the same time, and especially during periods of fiscal consolidation, governments undertake efforts to encourage greater efficiency or identify opportunities for reprioritizing expenditure (spending review functions and Value for Money reports); cost information should inform these efforts but they are by and large separate matters and are beyond the scope of this paper. For example, since the late 1980s the Australian government has applied an ‘efficiency dividend’ – a general reduction in departmental operating expenses ranging between 1 and 4% per annum – that is incorporated across the budget and forward estimates. The reduction is applied in the expectation that departments will reconfigure their operations to deliver greater productivity.

6 In some jurisdictions, such as Australia and New Zealand, procedures have been legislated for the costing of policy commitments made by major political parties during election periods. (Broadly similar arrangements operate by convention in other jurisdictions, such as in the Netherlands). This costing function is located with either finance ministries or specially constituted independent bodies, such as parliamentary budget offices. The MTEF in these countries is the baseline for updating the fiscal position at the time of the election – for example, the Pre-election Economic and Fiscal Outlook (PEFO) report in Australia (Commonwealth of Australia 2012) – as well as for estimating the fiscal impact of policy commitments made during the election. The procedures usually specify cost methodologies and assumptions consistent with conventional cost practices. Methodologies used in the Australian case correspond with conventional costing practices, and are discussed later in the report.
The distinction can be illustrated using the example of a program delivering training services to assist unemployed people find work. When costing such a program, general costing guidelines may require a spending ministry to assign indirect costs (such as depreciation on central information technology systems) in ways specific to the cost function of that service type, whereas budget process methodologies for preparing estimates may require the application of standardized price adjustments to direct staffing costs (such as case managers) over the forward years to ensure comparability of those cost types across all programs being considered in the MTEF budget process. In other words, spending ministries would be expected to apply the general guidelines in costing initiatives irrespective of whether the costing exercise was undertaken in the context of a MTEF budget process.

Ultimately within an MTEF the two sets of practices are integrated, but it is useful to distinguish between them to help explain basic requirements for program costing and additional requirements to enable those costings to support the forward year planning period. Therefore, the case study practices in this report will, as far as possible, ‘unbundle’ the two sets of practices for description and analysis.

1.5 Data collection, method and structure
The report is principally a comparative case study analysis of institutions, rules and practices governing costing for MTEF budget processes: the intention is to discuss high level practice themes. The primary data sources comprise questionnaire responses from finance ministries, interviews with selected finance ministry officials and review of policy and procedural documents.\(^7\) The secondary data sources comprise review of relevant public financial management technical and scholarly literatures. The report summarises similarities and differences between the four case study jurisdictions.

The purpose of the case study analysis is to contrast and compare costing practices for MTEF budget processes in national government across a range of advanced economies. Four countries – Australia, Austria, Canada and the Netherlands – were selected for review using the following criteria:

- membership of the OECD group of advanced economies

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\(^7\) The Finance Ministry Questionnaire appears at Annex 2. Questionnaire responses were received from Australia, Austria and Canada; the Netherlands submitted general explanatory documentation. All responses were incomplete, and in particular there were no usable responses to Section D of the questionnaire covering ‘systemic enablers and inhibitors’. As a consequence, Section D was omitted from the final scope of the project.
• evidence of either being a public financial management reform leader or having significant recent reform experience
• representative of different ‘administrative traditions’ to demonstrate MTEF practice across a range of institutional arrangements and cultural contexts
• supported by a reasonable level of access to official documentation and secondary analysis of reform (principally in English).

The questionnaire was also sent to the finance ministries of Spain and France, in order to assess experiences from countries with more similar administrative traditions to Latin American countries, but no response was obtained. Exhibit 1 below sets out key characteristics of each jurisdiction.

Exhibit 1. OECD case study selection

<table>
<thead>
<tr>
<th>Country</th>
<th>PFM Reform Experience</th>
<th>Administrative Tradition 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Reform leader</td>
<td>Westminster, Common law / federalist</td>
</tr>
<tr>
<td>Austria</td>
<td>Recent MTEF reform</td>
<td>Codified, Germanic / federalist</td>
</tr>
<tr>
<td>Canada</td>
<td>Reform leader</td>
<td>Westminster, Common law / federalist</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Recent MTEF reform</td>
<td>Codified, Germanic</td>
</tr>
</tbody>
</table>

Following an overview chapter (Part 2) that surveys the design and implementation of MTEFs, the report is structured around the key areas of MTEF practice: institutional arrangements and procedures (Part 3), program costing frameworks and practices (Part 4), and budget and forward years cost estimates (Part 5). Relevant case study experience is extracted in these parts, and institutional summaries are contained in Part 7. Part 6 is a concluding section that provides observations on the current status of MTEF costing practices as reported by finance ministries. Readers who are familiar with MTEF concepts and practices can skip Part 2 and go straight to Part 3.

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8 Descriptors for administrative traditions are based on typologies set out in Painter and Peters (2010).
1.6 Defining key operational concepts

The following operational terms and concepts will be used throughout the report. While some will be defined with more specificity in the context of individual case studies, the following definitions are provided as a common starting point.

**Finance Ministry** – executive government central agency with primary responsibility for the fiscal framework, budget process and financial management systems

**Spending Ministry** – executive government line agency that receives budget funding to deliver or purchase public services

**Costs** – the monetary value of the resources (human, physical or financial) used to achieve a particular objective; costs usually relate to a cost object (an activity, program, project, product, service, client or organization); costs can be distinguished from expenditure which is the amount of money that has been spent during a defined period

**Direct costs** – costs that can be directly traced to a cost object in an economically feasible way; an example of a direct cost is the salary of an employee whose work relates entirely to a single project

**Indirect costs** – costs that cannot be directly traced to a cost object in an economically feasible way; an example of an indirect cost is the depreciation on a corporate information technology system or shared service centres such as human resources or fleet management

**Cost System** – an information system that collates and assigns costs to relevant cost objects; such systems are not transactional type systems such as GFMIS (Government Financial Management Information Systems) but rather BI (Business Intelligence) type systems that collect information from different sources and organize under a costing perspective

**Full costing** – an approach to cost information that takes account of both the direct and indirect costs of a cost object; it is usually associated with the use of accrual accounting and requires three elements: an accurate asset register, estimates of depreciation (as a key indirect cost) and a cost system to support the assignment of indirect costs to cost objects

**Program** – classification of budget expenditure categorised by the purpose (or objectives) of the activities that the expenditure relates to; a program is the highest level of a budget program hierarchy and should ideally map to an organization’s funded activities
**Forward estimates** – projections by a finance ministry of expenditures over a fixed term, usually four years; they are the basis for medium term expenditure planning and may be used as the basis for imposing expenditure limits

**Existing and new programs** – an existing program relates to activities that are currently funded within the forward estimates of medium term expenditure planning; a new program relates to new activities (or an expansion of existing activities) that are not currently funded within the forward estimates; the term ‘new spending’ is also used as shorthand to refer to expenditure on new programs and/or expanded existing programs

**No policy change** – forward estimates of spending prepared under the assumption that laws, policies, behavioural and economic assumptions in the baseline program cost calculation remain in place

**Policy and parameter changes** – the main types of variations to baseline expenditure over a defined forward estimates period; a policy change is a government decision to fund a new program or an expansion of an existing program that is not contained in the forward estimates; a parameter change is a variation to either a non-economic parameter (such as assumptions about the number of beneficiaries for an existing program) or an economic parameter (such as assumptions about the rates of inflation or employment that affect existing programs)

**Forecasting and projecting** – a forecast takes into account cyclical variation in economic activity (such as future changes in exchange rates) and reflects what is expected to happen; a projection is based on assumptions (such as long run average growth rates for inflation) and shows what would happen if those assumptions continued to hold.
2. Defining and implementing MTEF

This part will:
- define and describe the role of a medium term expenditure framework (MTEF)
- outline the common technical objectives of MTEFs
- distinguish common types of MTEFs and how they relate to the technical objectives
- describe the linkage between a typical MTEF process and annual budgeting
- describe where and how costing is important to the stages of a typical MTEF.

2.1 Defining a medium term expenditure framework

The medium term expenditure framework (or MTEF) is one of the key budget planning and management practices that define contemporary public financial management reform in advanced countries. In its 2012 budget practices survey, for example, the OECD reported that nearly 90% of advanced economies had implemented some form of MTEF as part of their national budgeting framework (see OECD International Database of Budget Practices and Procedures 2012).

In conjunction with other public financial management developments, such as fiscal rules and performance budgeting, the MTEF is an important way of addressing some of the key shortcomings recognised in annual budgeting. An annual budget for revenues and expenditures often does not take account of the consequences of current year budget decisions in subsequent years. To better understand the fiscal impact of policies, to more effectively set current and future policy priorities, and to exercise control over budget aggregates, a MTEF integrates the annual budget formulation cycle with a medium-term planning process (where ‘medium term’ is usually defined as 3 to 5 years).

An MTEF is therefore not simply the documentation of multiyear estimates of revenue and expenditures alongside the annual budget, but rather ‘all the systems, rules and procedures that ensure the government’s fiscal plans are drawn up with a view to their impact over several years’ (Harris, Hughes, Ljungman and Sateriale 2013, 137). As this implies there is a wide range of approaches to – and terms used to describe – the implementation of a MTEF (discussed in Section 2.3, below). For illustrative purposes, we can define a MTEF as a

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9 Whilst the focus of this report is on the estimates of expenditure and the treatment of ‘new spending’ within an MTEF budget process, it is important to note that new policy measures can include both expenditure and/or revenue initiatives.
multiyear expenditure planning and management framework that typically contains three elements:

1. a medium term envelope of aggregate resources set by the finance ministry that is consistent with macroeconomic stability and government policy priorities (a ‘top-down’ component)
2. an estimate of the medium term resource needs (or costs) of the existing activities of spending ministries (a ‘bottom-up’ component)
3. an iterative process of budget decision making that reconciles the cost of existing and new activities with the resources available over the medium term (ODI 2003, 5 and World Bank 2013, 17-18).

The sequence for implementing an MTEF commonly starts with the first element (the top-down specification of aggregate resources and their allocation across policy sectors or spending ministries) and progresses to incorporate the second and third elements (the bottom-up determination of spending ministry resource needs and their integration with the annual budget process). The first element is dependent on the quality of macroeconomic forecasting methodologies, and the second and third elements are, as discussed later, reliant on the quality of budget program definition and the application of consistent costing methodologies.

2.2 Objectives of an MTEF

Consistent with a multiyear planning horizon for budgeting, a MTEF is usually associated with the three key technical objectives of public budgeting:

- aggregate fiscal discipline, or better control over budget totals
- allocative efficiency, or more strategic allocation of resources between priorities
- technical efficiency, or more efficient use of resources by spending ministries.

These objectives receive detailed treatment in many places (see, for example, World Bank 1998, Allen and Tommasi 2001; Schick 2009). In summary we can note two points. First, that when integrated with the annual budget process an MTEF can contribute to these objectives in various ways:

- aggregate fiscal discipline can be improved by signalling to decision makers the sustainability of existing spending programs, setting out the multiyear impact of a
new program prior to its adoption and establishing multiyear expenditure ceilings that help to contain expectations about future total expenditure

- allocative efficiency can be strengthened by providing decision makers with more detailed program cost and performance information as well as the flexibility of a longer timeframe to reallocate resources between lower and higher priority programs
- technical efficiency can be promoted by providing spending ministries with greater stability in funding levels and increased capacity to plan and manage resources over a multiyear (rather than an annual) budget authorisation.

Second, whilst the three objectives are often enumerated as discrete purposes in systemic budget reform, in reality they can conflict – for example, the increased certainty necessary for aggregate control is not always consistent with the flexibility required for reprioritising spending – and therefore MTEF design will just as often have to trade-off between them.

2.3 Common types of MTEFs

Since they can be configured using different institutional arrangements, and at the same time are expected to strike a balance between the three technical objectives, there are different variants of the MTEF. It is important to distinguish the most common types of MTEFs because the different emphases they place on the nature of the medium term estimates of expenditure have consequences for the generation and role of cost information. There are two common categories of MTEFs.

The first category is ‘forecasting versus programming’ MTEFs (Allen and Tommasi 2001, 182-3; Schiavo-Campo 2007). This categorises MTEFs on the basis of where and how the medium term estimates of expenditure are generated. In a ‘forecasting MTEF’ the finance ministry produces medium term projections of estimated aggregate expenditure and may then allocate this across sectors and spending ministries, who are expected to manage budgets within the ceiling. A forecasting MTEF is therefore ‘top down’ and based on the best estimates of the finance ministry (and, in the context of transitional and less developed countries, often not revenue constrained). In a ‘programming MTEF’ the finance ministry constructs medium term projections of estimated aggregate expenditure based on the costing by spending ministries of existing programs. A programming MTEF is therefore ‘bottom-up’ – the forward estimates are built on the funding needs of costed programs – and because it is
intended to be revenue constrained this variant makes a clear distinction between ‘existing’ and ‘new’ programs.

The second category is ‘indicative versus binding’ MTEFs (Allen and Tommasi 2001, 184-5; Harris, Hughes, Ljungman and Sateriale 2013). This categorises MTEFs on the basis of whether the medium term estimates presented with the budget are intended to bind future decisions, i.e. whether they are ‘hard’ or ‘soft’ expenditure ceilings. In an ‘indicative MTEF’ the medium term estimates of both revenue and expenditure are revised each year without reference to the estimates set out in the previous year. In such a framework the forward years are intended to estimate future costs, and may set out the composition of expenditure in detail, but do not always offer certainty for spending ministries. In a ‘binding MTEF’ the medium term projections are designed to both estimate future costs and constrain future decisions, although it can do this in different ways; for example, by fixing ceilings at either the aggregate level (where the annual Budget process deals with the allocation between spending ministries) or the ministry level (where the ceilings tend to be reset more frequently through the Budget process) (see Harris, Hughes, Ljungman and Sateriale 2013, 143-144).

2.4 Linking the MTEF with annual budgeting: A ‘rolling baseline’ illustration

Whilst there is no ‘typical’ MTEF, it is instructive to briefly describe how a medium term framework can be integrated with the annual budget process and how it can support a more strategic approach to budget preparation. This can be explained using the mechanism of ‘rolling baselines’ and the concept of ‘fiscal space’.

Figure 1 sets out an illustrative ‘rolling’ MTEF. The MTEF covers a four year planning period, comprising the budget year (year t) and three forward years (t+1 to t+3). The three forward years comprise baseline projections of the cost of all existing programs, which reflect government decisions on spending aggregates and policy priorities, and do not allow for the introduction of new programs. These cost estimates set out in the forward years are said to be on a ‘no policy change’ basis – expenditure on existing programs is assumed to be constant so that any variations to the baseline can be explained. The purpose of the annual budget process is to make sure that any incremental budget decisions – whether new programs or an expansion of existing activities – are assessed and explained in terms of their impact on the forward year estimates. In this way, and when combined with information on either the need
for – or the performance of – programs, the medium term estimates are designed to make annual budget decisions more strategic.

Figure 1: A ‘rolling’ MTEF and the annual budget process

Therefore, as a type of scorecard for annual budget decision making, the MTEF works through the mechanism of ‘rolling baseline projections’: once the budget is finalised, the first year of the forward estimates becomes the base year for next year’s budget and another forward year is added to the estimates. Using the illustrative MTEF, this means that once the 2012 Budget is finalised, the 2012-2015 MTEF estimates are ‘rolled over’ by adjusting for new spending approved in the 2012 Budget and changes to economic forecasts. The forward year (t+1) becomes the starting allocation (year t) for the 2013 Budget. The first forward year (t+1) becomes the starting budget allocation for the 2013 Budget. And so on each year.

In this illustrative MTEF, the ‘no policy change’ basis of the cost projections over the forward years is the level of expenditure required to continue to undertake existing activities, i.e. the ‘baseline’. If there is also an aggregate expenditure ceiling in place over the medium term estimates period, the difference between the ceiling and the baseline is known as ‘fiscal

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10 Diagram adapted from Overseas Development Institute (2003).
space’ (Schick 2009).\textsuperscript{11} It follows that fiscal space can be ‘positive’ (where the available revenue exceeds the baseline) or ‘negative’ (where the baseline exceeds the available revenue). Both cases illustrate the fundamental importance of distinguishing ‘existing’ and ‘new’ programs within an MTEF, as well as the need for systemic capacity to define and cost these programs. In circumstances of positive fiscal space, the budget process rations available resources between new or expanded programs, and in the case of negative fiscal space it becomes a framework for reviewing and reprioritising existing spending. A high level of integration is required between the annual budget process and the MTEF to make this work (Schick 2009; see also Robinson 2013a).

2.5 Where and how costing is important to the stages of an MTEF

Different types of MTEF place varying emphasis on the role of ‘top-down’ forecasting and ‘bottom-up’ costing within the medium term estimate. However, each category of MTEF, and the budget process to which it relates, implements a basic sequence of stages and informational outputs. These stages can be used to identify where and how costing practices and cost information are critical to an illustrative MTEF budget process.

Figure 2 below sets out a basic five stage process for an illustrative MTEF budget process. The stages correspond with one or both of either the top-down (finance ministry) or bottom-up (spending ministry) responsibilities. In stage 1, the finance ministry sets the strategic macroeconomic framework, including multiyear projections for revenues, expenditures and debt levels. In stage 2, the finance ministry prepares multiyear forecasts of spending on existing programs which may involve allocating ceilings at the sectoral or ministry level. In stage 3, spending ministries review their existing program spending and generate multiyear cost estimates of existing programs, new programs and enhanced existing programs, or new capital projects. Stage 4 is the finance ministry led annual budget process which assesses the relative priority of spending ministry program cost estimates in the context of indicative multiyear expenditure ceilings. In Stage 5 the annual budget is finalised in the context of the multiyear estimates, identifying variations to the baselines and adjusting the estimates over the multiyear period; this function is usually shared between the finance and spending ministries. Different types of cost information support the process at different stages –

\textsuperscript{11} The concept of ‘fiscal space’ is used here specifically to illustrate the interaction between ceilings and baselines in the rolling estimates mechanism. It can, however, be defined in broader macro-prudential terms, for example as a ‘government’s ability to undertake spending without impairing its solvency, that is, without impairing its present and future ability to service its debt’ (World Bank 2006, 14).
although arguably it informs all of them – and are of critical importance in Stages 2 and 3 combined, and Stage 4.

Figure 2. Basic stages of an illustrative MTEF budget process

In stages 2 and 3, multiyear estimates can be constructed using either finance ministry projections of current spending trends, spending agency costings of existing programs or a combination of both. More often than not these estimates take as their source historical spending data for ministries or functions, rather than constructing total cost estimates based on the actual costing of existing activities (or programs). Finance ministries will tend to apply general costing assumptions to existing programs as part of forecasting methodologies (such as labour and non-labour deflators to escalate expenditure) and require spending ministries within the budget process to apply more specific costing methodologies when preparing cost estimates for new – or expanded existing – programs (such as demographic or economic data to estimate demand for entitlement programs). Therefore, the accuracy and consistency of new program costing take on a higher priority within the incremental decision making of the annual budget process. In summary, there are two types of ‘costing’ exercise that inform a MTEF budget process: the way general costing assumptions inform forecasting methodologies, and the way costing methodologies inform consideration of programs in the annual budget cycle, generally restricted to new or expanded programs.

Cost information has been a fundamental component of public financial management reform over the last quarter century. In large part, this can be attributed to the general focus of these

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12 Diagram adapted from Overseas Development Institute (2003) and Dorotinsky (2006).
13 In addition, and as discussed briefly in the previous chapter, in some jurisdictions the application of consistent costing methods is also important for multiyear costing of policy commitments made by major political parties during election periods.
reforms on programmatic budgeting, which requires that budget expenditures be allocated and controlled on the basis of objectives-based programs and subprograms. Because program structures constitute instructions to organizational units on how to manage and control their budgeted resources, this has two important consequences (Robinson 2013b). The first is that program structures need to be defined in a feasible way to ensure allocations can be mapped between programs and organizational structures, as well as to permit a workable approach to assigning indirect costs – usually internal support services – to programs. In this context, programs costs include all direct costs (such as staff salaries) and indirect costs (such as imputed use of car fleets). The second consequence is that program structures must be integrated with both budget expenditure classifications and the chart of accounts. Cost information, and the costing systems used to collect and report cost information, must be closely aligned with the program structure (Robinson 2007).

In principle then, the budget and forward years’ estimates within a MTEF should be constructed on the basis of estimating the actual cost of existing government programs, across ministries and sectors, rather than taking historical levels of budgeted expenditure as a starting point and mechanistically escalating for changes in, say, price levels. In other words, the effectiveness of both ‘forecasting’ (top-down) and ‘programmatic’ (‘bottom-up’) MTEFs is dependent on the accuracy of spending ministry cost estimates for both existing and proposed programs, which in turn relies on the feasibility of program structure definition. In this way, costing methodologies, and the capacity to apply them, form the foundation of MTEF implementation.
3. MTEF institutional arrangements and procedures

This part will describe the common and exceptional features of MTEFs across the four survey jurisdictions in three thematic areas:

- the institutional, legal and policy arrangements for MTEFs (including the budget calendar, and the level of integration with the annual budget process)
- the scope of the forward estimates (including their timeframe, the basis of their preparation, and how they are reported)
- the key elements of the forward estimates (including responsibility for their preparation, the frequency of their updates, and the extent to which they distinguish existing and new programs).

3.1 Introduction

This part reports the distinguishing characteristics of the institutional arrangements and procedures for MTEFs operating across the four survey jurisdictions. The purpose is to isolate the key themes arising from the individual case studies and to provide context for the more specific treatment of costing practices covered in Parts 4 and 5. The method is to compare and contrast institutional settings for MTEFs using the survey questions. Table 3.1 sets out the institutional arrangements and procedures in summary form.

3.2 Institutional, policy and legal arrangements

This theme covers the legal and policy basis of the MTEF in survey jurisdictions, and the extent to which the MTEF is integrated with the annual budget process.

In three of the survey jurisdictions the MTEF is implemented through administrative policy and/or convention. In Australia and Canada, both of which are Westminster-type parliamentary systems, the finance ministries manage an inter-related set of administrative arrangements around Cabinet budget committees, and the planning function of forward estimates constitute the basis of a ‘policy’ MTEF. In addition, in Australia the policy practices of the forward estimates are reflected in ‘fiscal rules’ legislation that requires medium-term fiscal reporting as part of the annual budget documentation. In the Netherlands, and like other codified continental systems, the budget process is specified in basic legislation (and bounded by statutory adoption of European Union fiscal rules); however, key aspects of

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14 That is, the MTEF is not mandated in legislation but instead based on either directions from the Finance Ministry or generally accepted practices.
the MTEF, including fixed medium term expenditure limits, are governed by political norms, especially the central role of Coalition Agreements in stipulating budget commitments over the term of a government. The exception within our sample is Austria, also a codified administrative system, which also has the most recently implemented MTEF. There, as part of the political compact required for budget reforms, the timeframe, expenditure ceilings and reporting elements of the MTEF are set out in legislation (Federal Organic Budget Act 2009).

Table 3.1 Comparative MTEF Institutional Arrangements: Summary of Responses

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>Austria</th>
<th>Canada</th>
<th>The Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integrated with the annual budget process?</strong></td>
<td>Yes High integration</td>
<td>Yes High integration</td>
<td>Yes High Integration</td>
<td>Yes High Integration</td>
</tr>
<tr>
<td><strong>What is the timeframe covered?</strong></td>
<td>Four years (Budget + three outyears)</td>
<td>Four years <em>(t+1 to t+4)</em></td>
<td>Three years Annual Reference Level Update (ARLU) is Budget + two years Budget papers report new initiatives separately</td>
<td>Four years + 1 (Annual budget within 4 year expenditure limits set out in CA + extrapolation year)</td>
</tr>
<tr>
<td><strong>Are forward years on a no-policy change basis? How defined?</strong></td>
<td>Yes Forward years exclude new policy, but include forecasts of economic and non-economic parameters, which are the basis for costing existing policies</td>
<td>No Forward years expenditure ceilings have two components: 75% fixed nominal and 25% variable</td>
<td>Yes ARLU ‘cost of existing non-statutory programs’ Forward years exclude new policy, but include forecasts of economic and non-economic parameters, which are the basis for costing existing policies</td>
<td>Yes Forward years expenditure ceilings are ‘real’</td>
</tr>
<tr>
<td><strong>How are forward years reported?</strong></td>
<td>Ministerial portfolios and programs</td>
<td>Headings (sectors) and chapters (ministries)</td>
<td>Departments and programs</td>
<td>Chapters (ministries) and articles (programs)</td>
</tr>
<tr>
<td><strong>Are estimates determined by the Finance Ministry?</strong></td>
<td>Yes Finance approval process for ministry updates</td>
<td>Yes BMF (Austrian Ministry of Finance) prepares estimates in consultation with ministries</td>
<td>Yes TBS (Treasury Board Secretariat) determines ARLU in consultation with departments</td>
<td>Yes CA sets budget totals Finance manages a ‘trade-off’ system within the totals</td>
</tr>
<tr>
<td><strong>How often are</strong></td>
<td>Three times a year: Nominal ‘heading’</td>
<td>Annual</td>
<td>Four times a year:</td>
<td></td>
</tr>
</tbody>
</table>


There is a high level of integration of the MTEF planning horizon with the annual budget process. An indicative MTEF operates in Australia and Canada, so that the forward estimates act as a rolling baseline for assessing the impact of spending decisions taken in the annual budget process. In contrast a binding MTEF operates in Austria and the Netherlands, so that an expenditure ceiling acts to limit new programs and oblige ministries to manage within sectoral allocations.

There is a similar budget calendar used across all four jurisdictions that integrates the forward estimates as either a planning instrument or a set of expenditure limits. The calendar comprises distinct stages covering the issue of operational rules for the budget, preparatory updating of the forward estimates, priority setting, submission of budget proposals by spending ministries, review and decision by finance ministries and cabinets, and final updating of the forward estimates. Refer to individual case studies in Part 7 for detailed calendars.

3.3 Scope of forward estimates

This theme covers the following topics: (i) the timeframe of the MTEF, (ii) whether the forward estimates are defined on a ‘no policy change’ basis, and (iii) the budget reporting structure.

The MTEF planning horizon varies between jurisdictions, and is dependent on the type of MTEF (that is, indicative or binding). In Australia the medium term is defined clearly as a four year period, comprising the ‘budget’ year and three forward years; the forward estimates

<table>
<thead>
<tr>
<th>forward year projections updated?</th>
<th>- Budget - Midyear outlook - ERC consideration</th>
<th>expenditure ceilings for four years: revised only as necessary and require parliamentary approval</th>
<th>Also, in-year update of Economic and Fiscal Projections (Oct-Nov)</th>
<th>Most important are Spring and Budget Day Independent Central Policy Bureau provides economic parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the framework distinguish existing and new programs?</td>
<td>Yes Budget papers disclose all new policy decisions (referred to as ‘measures’, which are specific initiatives that contribute to programs)</td>
<td>No</td>
<td>Yes ARLU adjusts existing spending; Separate new initiatives process; Budget papers report new initiatives separately</td>
<td>Yes Annual Budget process identifies new spending initiatives which can only be funded from changes to existing spend</td>
</tr>
</tbody>
</table>

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are prepared on a rolling basis such that the first year becomes the base year for next year’s budget and another forward year is added to the estimates. In Canada, the Budget forward estimates are presented externally on a two year basis, comprising the budget year and one forward year; this contrasts with the estimates adjustment process – the Annual Reference Level Update (ARLU) – that effectively provides for a three year estimates period (that is, the budget year and two outyears). In both Austria and the Netherlands, where the forward estimates are intended as binding ceilings, the medium term aligns with government formation, and is defined as four years, with a fifth ‘extrapolation’ year to effect rolling baselines. In all jurisdictions, however, by the last year of the electoral cycle the forward estimates reach well into the next electoral cycle and are designed to serve as an ongoing basis for fiscal planning.

The forward estimates are largely prepared on a ‘no policy change’ basis – that is, laws, policies, behavioural and economic assumptions in the baseline program cost calculation remain in place – but treat existing and new programs quite differently. In Australia and Canada, the forward years exclude spending decisions based on new policy; at the same time, the Australian forward estimates process takes into account forecast changes in non-economic parameters (like the number of beneficiaries for an entitlement program). In both cases, at various stages of the formulation process for the next year’s budget process the forward estimates are adjusted – or ‘escalated’ – to reflect updated forecasts in price levels, or changes in the forecast uptake of demand driven items, and over the course of the budget process the impact of new spending decisions are incorporated in the estimates in a ‘scorecard’ fashion. In contrast, the forward years within both the Austrian and Netherlands MTEFs are intended as expenditure ceilings and deal with policy adjustments differently. In Austria, the forward year expenditure ceilings have two components: a fixed nominal element (applying to 75% of the budget) and a variable element (applying to the remaining 25%) that relates to statutory income transfer payments. In the Netherlands forward year expenditure ceilings are set in ‘real’ terms. In both cases, new programs must be accommodated within ministry ceilings, and in Austria modifications to the overall ceilings can only be approved by the Parliament.

All four jurisdictions report the budget forward estimates using some form of programmatic structure which covers all expenditure in the annual budget. The program structure, the definition of programs, the level of disaggregation and the degree of standardisation all vary significantly. In Australia, the budget is reported on the basis of ministerial ‘portfolios’ and
departmental ‘programs’: in 2013 there were 21 portfolios and approximately 300 programs. In Canada, the estimates are presented on the basis of ‘types of expenditure (e.g. operating or capital)’, ‘organisations’ and ‘strategic outcomes and programs’: in 2013 there were 135 organisations and approximately 450 programs. In Austria, the budget structure comprises ‘headings’ (equivalent to policy sectors) and ‘chapters’ (equivalent to ministries or smaller units): in 2013 there were five headings and about 30 chapters. In the Netherlands, the budget estimates are organised around ‘chapters’ and ‘articles’: in 2013 there were 21 chapters and around 130 articles. More detailed discussion of program structure is set out in Part 4; jurisdictional practices are explained in the individual case studies in Part 7.

3.4 **Elements of the forward estimates**

This theme covers the process for estimates approval, the frequency of updates for forward year estimates and the extent to which the framework distinguishes existing and new programs.

The forward estimates are prepared and maintained by the finance ministry in each jurisdiction, although there are important differences in the institutional arrangements for setting parameters for forward year projections and establishing aggregate ceilings. These will be discussed in more detail in Parts 4 and 5, and they are only précised here. In Australia, the Department of Finance is responsible for maintaining the forward estimates and manages a central approval process for updating ministry level estimates throughout the budget process. In Canada, the Treasury Board Secretariat manages the forward estimates through a technical adjustment process – the ARLU – in consultation with departments and agencies. In both countries, parameter changes to forward year projections are determined by the finance ministries. By way of contrast, whilst in Austria and the Netherlands the forward estimates are maintained by the respective Ministries of Finance, in both countries estimates construction at the commencement of a term of government, and subsequent adjustment, must be based on parameter changes provided by statutorily independent advisory bodies. In addition, because aggregate expenditure ceilings are determined by the government – in the case of the Netherlands through the Coalition Agreement – the role of finance ministries is increasingly directed at managing a ‘trade off’ system’ within the ceilings.

15 In Australia, a ‘portfolio’ corresponds with the functional responsibilities of a Cabinet Minister and comprises two or more entities (departments or agencies), and a ‘program’ is the budget reporting structure that each entity uses to group activities and related expenditure. Both concepts are defined in more detail in Part 4.

16 Noting that in Austria these arrangements apply only to the variable component of expenditure ceilings.
The frequency of updates also varies between jurisdictions and, as noted above, their source is dependent on the prevailing institutional settings. For example, in Australia the forward estimates are updated three times during the budget year: at the commencement of the budget process following the midyear economic and financial outlook reporting process, in preparation for cabinet-level review of new spending proposals, and as part of finalisation of the budget for parliamentary consideration. A similar update frequency is the case in the Netherlands, although parameter changes, as noted, are provided by the independent Central Policy Bureau. An annual update is the norm in Canada, through the technical ARLU process, with adjustments being made three times per year through supplementary estimate processes. In Austria, nominal expenditure ceilings are used for sectoral allocations, and these are only revised as necessary by Parliament (and supported by a government explanation of changes to planning assumptions).

As noted earlier, the distinction between existing and new programs is more explicit in some frameworks than others. For example, in Australia and Canada, the annual budget process clearly distinguishes consideration of proposed new policy (or savings) from the baseline of continuing program expenditure extrapolated within the forward estimates. Further, in both countries the Budget estimates, as presented to the parliament, disclose all new policy decisions. In both Austria and the Netherlands, ministries can manage overspends or underspends within expenditure ceilings by reallocating spending between ‘programs’; however, in the Netherlands neither windfalls nor overruns can be applied to new policy measures, which can only be approved by the cabinet in the context of the Coalition Agreement.
4. MTEF program costing frameworks, practices and methods

This part will describe the common and exceptional features of MTEF program costing practices across the four survey jurisdictions in three thematic areas:

- the requirements and guidance for program specification (including the definition of program structures and whether the finance ministry issues mandatory program specification guidelines)
- the requirements and guidance for program costing (including the purpose of program costing information and whether the finance ministry issues mandatory program costing guidelines)
- the methodologies and coverage of program costing (including the specific methodologies covered by guidelines, their treatment of direct and indirect costs, their application across new and existing programs, and their application within cash and accrual budgeting environments).

4.1 Introduction

This part reports the distinguishing characteristics of program costing frameworks, practices and methods for MTEFs operating across the four survey jurisdictions. The purpose is to isolate the key themes arising from the individual case studies and to help differentiate mandated arrangements to guide spending ministry costing of programs and more specific mandated provisions to guide MTEF budget and forward year cost estimate practices. The method is to compare and contrast program specification and costing practices using the survey questions, and to identify instructive examples of costing methods and their application. Table 4.1 sets out the program costing practices in summary form. It must be noted that program specification and costing guidelines were not available in the cases of Austria and the Netherlands.

4.2 Requirements and guidance for program specification

This theme covers the requirements and guidance for program specification, including the definition of program structures and whether the finance ministry issues mandatory program specification guidelines.

As previously noted, all jurisdictions use a programmatic structure for presenting the budget estimates. However, the specification of programs and their level of disaggregation (i.e. the levels of the program structure) and the standardisation with which ministries report
programs vary significantly. Of the four jurisdictions only Australia and Canada appear to issue formal policies on program budget reporting.

The Australian programs policy is mandatory. All central general government (budget dependent) sector entities are required to budget, measure performance and report on an ‘outcomes and programs’ basis. Budget reporting in Australia comprises three levels: ministerial portfolios (of which there are 21), entities (departments and agencies, of which there are 111) and programs (of which there are approximately 300). Each entity is required to report budgeted expenses and performance using an ‘outcomes statement’ that specifies the intended high level outcomes for the entity and the ‘programs’ (activities) that contribute to achievement of those outcomes. For each ministerial portfolio, detailed information about programs and budget allocations for relevant entities are grouped together in a Portfolio Budget Statement (PBS).

A program is the minimum level of reporting required for budget documentation, and is recorded in both the estimates information management system – the Central Budget Management System (CBMS) – and the PBS; program data must be consistent between CBMS and PBS. The program guidelines stipulate four fundamental criteria for specifying programs:

- programs must be activities or groups of activities that contribute to the intended results of each outcome statement
- programs must be ongoing in nature (minimum duration of 5 years)
- programs must be material in size of annual expenditure (greater than $50m-$100m) to ensure the program list is ‘manageable and relevant to whole-of-government program analysis and budgeting’
- programs must map to a single Government Financial Statistic (GFS) sub-function and single government outcomes statement.

It should be noted, however, that in the Australian case ‘programs’ defined for CBMS and PBS reporting may not necessarily map either to the organisational structure of entities or the preferred approach of entities to internally managing and reporting financial and non-financial program performance (which is to say that entities tend only to comply with the minimum requirement to use program structures for external budget reporting).
The Australian Department of Finance manages the ‘Commonwealth Program List’ to ensure the accuracy, materiality and consistency of information disclosed in budget programs, including a central approvals process for modifying the program list.

Table 4.1 Comparative MTEF Program Costing Practices: Summary of Responses

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>Austria</th>
<th>Canada</th>
<th>The Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the finance ministry issue program guidelines? Are they mandatory?</td>
<td>Yes Programs Policy and Approvals Process Mandatory</td>
<td>No</td>
<td>Yes Policy on Management, Resources and Results Structures (PMRRS) and Program Alignment Architecture (PAA) Not mandatory</td>
<td>Not specified</td>
</tr>
<tr>
<td>Is a program defined? Does the finance ministry issue program specification guidelines?</td>
<td>Yes Guidance for the Preparation of Portfolio Budget Statements (annually)</td>
<td>No Budget is organised on ‘chapter’ basis, with each chapter specifying up to 5 outcomes</td>
<td>Yes PMRSS and PAA</td>
<td>Yes Accountable Budgeting Reform: Budget is organised on ‘chapter’ basis, with each chapter comprising ‘policy’ and ‘non policy’ articles</td>
</tr>
<tr>
<td>What is the purpose of costing information?</td>
<td>To assess financial impact of proposed policy - Assess the reasonableness of estimates - Assess consistency of costs with policy objectives - Assess direct flow-on impacts to other areas of expenditure</td>
<td>To provide ‘implicit’ support for the outcome oriented impact assessment process</td>
<td>Determined by ‘purpose’: - cost recovery - make-or-buy decisions - level-of-service decisions - cost-benefit decisions - costing of a new initiative (incremental funding)</td>
<td>Not specified</td>
</tr>
<tr>
<td>Does the finance ministry issue guidelines on program costing? Are they mandatory?</td>
<td>Yes Not mandatory but ‘conventional costing template’ must be used for staffing and ‘on-costs’ (such as pensions and other benefits)</td>
<td>No</td>
<td>Yes Guide to Costing (2008) Not mandatory TBS Submission Guide mandatory (for submission of new spending initiatives)</td>
<td>Not specified</td>
</tr>
<tr>
<td>What methodologies do costing guidelines cover?</td>
<td>Differentiated for: - Departmental Items (conventional costing template [Cost = Quantity x Price] + wage index) - Administered Items</td>
<td>Not specified</td>
<td>Range of methods - Causal relationships - Cost pools - Standard costs and fixed percentages</td>
<td>Not specified</td>
</tr>
</tbody>
</table>

32
(policy assumptions, key cost drivers, large model methods – covers direct behavioural effects only)

<table>
<thead>
<tr>
<th>How do program costing guidelines treat indirect costs / fixed (capital) costs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not specified Note that new policy proposals for capital works require a ‘whole-of-life’ cost-benefit analysis (see Part 5)</td>
</tr>
<tr>
<td>Not specified</td>
</tr>
<tr>
<td>General guidance on allocating indirect costs, especially use of ‘cost pools’</td>
</tr>
<tr>
<td>Not specified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do program costing guidelines cover all programs or new programs only?</th>
</tr>
</thead>
<tbody>
<tr>
<td>New spending only (new programs or changes to existing programs)</td>
</tr>
<tr>
<td>Not specified</td>
</tr>
<tr>
<td>New spending only (TBS Submission for new initiatives or spending outside the agency’s reference levels)</td>
</tr>
<tr>
<td>Not specified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accrual or cash budgeting (revenues and expenditures)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrual</td>
</tr>
<tr>
<td>Accrual and cash</td>
</tr>
<tr>
<td>Accrual and cash</td>
</tr>
<tr>
<td>Accrual and cash</td>
</tr>
</tbody>
</table>

The equivalent Canadian programs policy is also mandatory. It establishes a common government-wide approach to specifying programs and to ensure consistency in the collection, management and reporting of financial and non-financial information. The policy requires each department or agency to develop a ‘program alignment architecture’ (PAA) to explain how it allocates and manages resources. The program guidelines stipulate five key criteria for specifying program architecture:

- programs should identify and group related activities and link them logically to the strategic outcomes they support
- the architecture should link planned resource allocations to each program at all levels and against which financial results can be reported
- the architecture should link performance measures to each program at all levels and for which actual results are reported
- the architecture should structure the Estimates (detailed departmental spending plan) presentation and parliamentary reporting
the architecture should serve as a common basis for informing resource allocation by Parliament, the Treasury Board and departmental management (noting that approval is still on the basis of ‘type of expenditure’, such as operating and capital).

As in Australia, the Treasury Board Secretariat approves each department’s PAA and must also approve any changes.

As noted earlier, both Austria and the Netherlands have budget program structures but neither are defined in the same way. In Austria, ‘headings’ and ‘chapters’ disaggregate on the basis of policy sectors and ministries, with budget statements further broken down into ‘global budgets’ comprising categories of activities. In the Netherlands, ‘chapters’ and ‘articles’ disaggregate on the basis of ministries and policy programs; there are about 130 articles, with each article on average accounting for about €1bn. However, as Table 4.1 indicates, in the cases of both Austria and the Netherlands, program guidelines are not available.

4.3 Requirements and guidance for program costing

This theme covers the requirements and guidance for program costing, including the purpose of program costing information and whether the finance ministry issues mandatory program costing guidelines.

As Table 4.1 shows, costing guidelines are issued only in Australia and Canada. In addition, it was only in these two jurisdictions that finance ministries articulated clear purposes for costing information in the budget process. The common denominator is the need to cost proposed new spending. In Australia, the ‘forward estimates’ budget process requires the costing of ‘New Policy Proposals’ (NPPs) to assess the financial impact of a proposed government policy on the Budget balance, to enable the Government to agree the resourcing of agencies and to inform future reviews of programs. In addition, the costing process enables the Department of Finance to assess the costs of NPPs presented by agencies to:

- determine and agree the cost is reasonable and robust estimate
- ensure consistency of the costing with the stated policy objective
- assess the potential direct flow-on impacts to other areas of government expenditure.

In Canada, the objectives of costing are broader, and defined more or less depending on the users and the decision: ‘costing is done for the purpose intended’. Cost estimates are required for new policy or program proposals that are presented to Cabinet for consideration, and
more refined cost estimates are developed for submissions considered by Treasury Board (a statutory cabinet committee).

The Australian Department of Finance issues a ‘standardized costing model’ for use by all departments and agencies in calculating departmental funding for new policy proposals (NPPs). These are also reflected in the protocols relating to the costing of election commitments – Charter of Budget Honesty: Policy Costing Guidelines – issued jointly by the Department of Finance and the Treasury. The aim of the costing model is to provide a consistent approach to the calculation of salary and other marginal costs related to NPPs, such as office accommodation. The costing model is not mandatory for all programs, although departments and agencies are expected to use the standard approach for specified categories of ‘departmental expenses’, especially staffing costs (methodologies are discussed in more detail below). In effect, this means that only new spending being considered in the budget process requires costing.

Program costing guidelines in Canada are set out in two documents. The first of these is the Guide to Costing issued by the Treasury Board Secretariat (2008). Whilst the Guide is not mandatory, it emphasises that ‘costing is done for the purpose intended’ and therefore that specific costing exercises should be formulated by utilising methodologies from the Guide to suit the particular needs of that costing exercise. For example, it identifies a range of common cost applications for departmental program management purposes – including cost recovery, make-or-buy and level-of-service decisions – which are intended principally to support how services are most effectively funded and delivered. However, the Guide also specifies how cost information is intended to inform the Budget process in two ways:

- it is ‘recommended’ as the costing approach to determine costs at each level of the program alignment architecture, i.e. programs and sub-programs
- it should be ‘drawn upon’ as the costing approach to determine the direct and indirect costs of all new initiatives (known as ‘incremental funding’) prepared as Treasury Board submissions.

The second set of guidelines relate specifically to the preparation of Treasury Board Submissions. These are ministerial policy submissions seeking approval from the Treasury Board to fund new initiatives that are not included in a department’s expenditure reference levels (forward estimates). They provide details on program design, specific costs, expected results and outcomes, and program delivery and implementation.
4.4 Methodologies and coverage of program costing

This theme covers the methodologies and coverage of program costing, including the specific methodologies covered by guidelines, their treatment of direct and indirect costs, their application across new and existing programs, and their application within cash and accrual budgeting environments. 17

The costing guidelines in Australia and Canada, whilst mandatory in their application to new budget proposals, set out a range of methods and practices to standardize approaches. Key practices and examples from will be highlighted in the following discussion.

In Australia the costing of new policy proposals (NPPs) is expected to cover four elements: understanding the policy, costing departmental items, costing administered items and costing capital and ICT items. In addressing these elements the costing exercise must cover all direct costs in delivering an initiative as well as direct flow-on effects to other government programs (for example, a proposal to expand childhood vaccination services may also result in increased expenses in medical reimbursement costs). The four elements are set out in the costing process map in Exhibit 2.

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17 As they apply to the costing of budget proposals, it should be noted that costing guidelines in both jurisdictions provide meagre coverage of methods for allocating indirect costs, such as common pool costs.
The first element is understanding the policy. This requires agencies to set out policy descriptions that explain the intent of the policy (including the target groups and outputs) and the main components that need to be costed, i.e. the most significant cost drivers. The second and third elements relate to the two categories of appropriations within the Australian budget framework: departmental items (a department’s operating expenses) and administered items

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18 Source: Australian Department of Finance and Deregulation 2013.
19 Notes for Exhibit 2. Explanation of abbreviations: RPAT (Risk Potential Assessment Tool); FMG (Financial Management Guidance); AMPS (Asset Management and Parliamentary Services); AGMIO (Australian Government Information Management Office). The RPAT risk assessment supports the Cabinet submission process and determines the need for capital funding proposals to be subject to either a full business case, a gateway review as additional external assurance, or a ‘two-stage’ capital works approval process seeking approval and funds prior to full business case preparation. The ‘efficiency dividend’ is an annual reduction in departmental operating budgets in anticipation of efficiencies being found.
(the program expenses that a department administers on behalf of government). The ‘standardised costing model’ is applied to departmental expenses for NPPs. This is to provide ‘reasonable funding for salary and other marginal costs’ based on standard salary rates updated to incorporate the latest public sector remuneration surveys and inflation indexation of other on-costs. The costing of administered items, which relate principally to activities governed by eligibility rules established by the parliament, is expected to isolate implementation assumptions, for example about target group behaviour to estimate volume projections. These are also discussed in more detail in Part 5.

The costing process for departmental expenses generally apply the ‘Cost = Input Quantity x Input Price’ principle. The total cost is determined by breaking down a policy costing into cost elements (e.g. salaries, materials etc.), conducting a price-based and quantity-based analysis of each element, and summing the cost subtotals to calculate an overall cost estimate. This approach is also accompanied by a number of conventions:

- costings should be calculated on a current price basis
- costings should be prepared in accrual and cash terms (so that both the impact on the fiscal balance and underlying cash balance are calculated)
- costings should take account of direct behavioural responses (or first round effects) but will generally not incorporate second round effects
- the assumptions used in costings (for example, the numbers of people making use of a particular rebate) should be transparent and, to maintain consistency, assumptions used in one policy costing will generally be used again for costing similar policies.

Exhibit 3 provides an example conventional costing process for a fictitious airport passenger screening policy.
Exhibit 3. Example costing methodology for a New Policy Proposal – Australian Department of Finance

<table>
<thead>
<tr>
<th>Costing of a proposal to introduce a new screening process for passengers and checked baggage in Australian airports.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Determine the number of airports affected that do not have the security screening procedures in place.</td>
</tr>
<tr>
<td>Step 2. Estimate the price and installation costs of each piece of equipment required to implement the screening (for example, Explosive Detection System Capable X-ray machines (checked baggage), Explosive Trace Detection machines, Walkthrough Metal Detectors (passengers), X-ray machines (passengers’ carry-on baggage) and other items, including hand wands, divest tables, tensa barriers, etc.).</td>
</tr>
<tr>
<td>Step 3. Assess the costs of operating the equipment. These would include costs associated with communicating new procedures to travellers (which will vary depending on the type of communication – such as printed flyers, posters, language cards, and so on – multiplied by the cost and the quantity required), the cost of employees with the technical expertise to assist the airports in implementing this form of screening (this would be based on the number and type of employees required, their pay rates and the length of time required), consultative forums between the administering agency and the affected airports (this would include travel and meeting expenses such as flights and venue hire), as well as the cost of ongoing audit and compliance activities (this would be calculated on the estimated number of officers, their pay rates, the number of visits and the length of time required to undertake these activities).</td>
</tr>
<tr>
<td>Step 4. Construct the total cost estimate from the two components, that is, the equipment together with the program delivery costs for the Department.</td>
</tr>
<tr>
<td>It should also be noted that a costing may also consider the most cost-effective way of achieving the policy objective; this could examine options such as whether it is more cost-effective to hire rather than purchase the equipment or to use consultants or departmental officers for some or all of the activities.</td>
</tr>
<tr>
<td>Source: Commonwealth of Australia 2012, 24.</td>
</tr>
</tbody>
</table>

Similar to the Australian approach, the Canadian Guide to Costing is based on commonly accepted management accounting practices and sets out a generic costing process that is intended to be used for all costing exercises:

- Cost purpose – what purpose will the cost information be used for?
- Cost object – what is being costed, such as an activity, output or service?
- Cost base – which costs are relevant to the purpose and object?
- Cost classification – what are the relevant direct and indirect costs?
- Cost assignment – what are the most appropriate and cost-effective methodologies to assign costs to the cost objects?
- Calculate, validate and confirm – apply the methodologies, validate the calculations and assumptions and confirm consistency with the cost purpose.
The Guide emphasises that ‘costing is done for the purpose intended’ and therefore that specific costing exercises should be formulated by utilising methodologies to suit the particular needs of that costing exercise. For example, it identifies a range of common cost applications for departmental program management purposes – including cost recovery, make-or-buy and level-of-service decisions – which are intended principally to support how services are most effectively funded and delivered.

As discussed earlier, the Guide is intended to support the costing of new budget initiatives through the Treasury Board Submission process. These submissions are required to set out details on program design, relevant direct and indirect costs, expected results and outcomes, and program delivery and implementation. In particular, the submission should identify all costs by category, their phasing over the budget and forward years, the total cost of the proposed initiative and, where relevant, the source of funds.

The guidelines for preparing Treasury Board Submissions provide an instructive illustration of how cost information can be presented for Budget submissions. In particular, the guidelines require the use of a standard ‘Cost, Funding Requirements and Source of Funds Table’ to accompany Budget submissions with cost impacts (Treasury Board Secretariat 2014). Exhibit 4 is the template for this standard table, Exhibit 5 provides a worked example for a fictitious organization ‘Initiatives Canada’, and Exhibit 6 outlines the range of costs that should normally be considered in constructing cost schedules.

Calculated on a cash accounting basis, Exhibits 4 and 5 illustrate how at the organizational level total costs are itemised by vote, input factor (such as ‘personnel’ or ‘operating and maintenance’), accommodation costs and other statutory items. (If the submission seeks to acquire capital assets and/or land through new funding, a separate table is required to present the accrual information: see discussion below). Total costs are estimated for the five year fiscal forecast period. Importantly, the standard table also obliges submissions to calculate the ‘funding requirement’ on a net basis, taking into account existing funding sources and transfers. In this respect it should be noted that the table captures cost and funding information in three separate sections: ‘New Funding’, ‘Existing Funding’ and ‘Transfers’.

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20 The Treasury Board Submission Guidance was revised in April 2014, and the costing guidelines are available at the Treasury Board Secretariat of Canada website: http://www.tbs-sct.gc.ca/tbs-pct/dgw-ddir/dgw-ddir-eng.asp#Toc370738882. The template for the ‘Cost, Funding Requirements and Source of Funds Table’ is available for download as an Excel spreadsheet at the same location.
Lastly, as a side note it should be noted that although desired, accrual accounting and budgeting is not a prerequisite for producing cost information. Of the countries surveyed, only Australia has full accrual accounting and budgeting practices in place. Austria has accrual accounting and budgeting, except for public service pensions, while Canada has implemented only accrual accounting. The Netherlands, by its turn, has neither accrual accounting nor budgeting.

Exhibit 4. Budgetary costing presentation for budget and forward years

| Cost, Funding Requirements and Source of Funds Table by Estimates Vote Structure | Fiscal Year – Dollars |
| --- | --- | --- | --- | --- | --- | --- | --- |
| New Funding (including adjustments to vote-netted revenue) [Provide breakdown by organization, vote and input factor, as applicable.] | | | | | | |
| Vote [insert operating vote number] – Operating Expenditures and Employment Benefit Plans (EBPs) | | | | | | |
| Personnel | | | | | | |
| Other operating costs | | | | | | |
| EBPs @ 20% | | | | | | |
| Total Vote [insert operating vote number] and EBPs | | | | | | |
| Vote [insert capital vote number] – Capital Expenditures and EBPs | | | | | | |
| Personnel | | | | | | |
| Other | | | | | | |
| EBPs @ 20% | | | | | | |
| Total Vote [insert capital vote number] and EBPs | | | | | | |
| Vote [insert grants and contributions vote number] – Grants and Contributions | | | | | | |
| Grants | | | | | | |
| Contributions | | | | | | |
| Total Vote [insert grants and contributions vote number] | | | | | | |
| Total Votes | | | | | | |
| PWGSC accommodation premium @ 13% | | | | | | |
| Other statutory items | | | | | | |
| Adjustments to Vote-Netted Revenue [Provide a breakdown by input factor as applicable] | | | | | | |
| Personnel | | | | | | |
| Other operating costs | | | | | | |
| EBPs @ 20% | | | | | | |
| Vote-netted revenue (excluding EBPs) | | | | | | |
| Total (equal to ERP amount) | | | | | | |
| Source: Treasury Board of Canada Secretariat 2014 |

Exhibit 5. Worked example of budgetary costing presentation for budget and forward years

| Summary Table by Estimates Vote Structure / Tableau sommaire des coûts par crédit budgétaire |
| Organization Name / Nom de l'organisation : Department of Initiatives |
| New Funding / Financement |

<table>
<thead>
<tr>
<th>Input Factor / Factor d'entraînement</th>
<th>Fiscal Year / Exercice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary / Salaires</td>
<td>673,040</td>
</tr>
<tr>
<td>Operating &amp; Maintenance / Entretien et fonctionnement</td>
<td>571,373</td>
</tr>
<tr>
<td>Capital / Dépenses en capital</td>
<td>1,307,423</td>
</tr>
<tr>
<td>Subtotal / Total pariel</td>
<td>2,638,548</td>
</tr>
<tr>
<td>EBP @ 20% of Salary / RASE à 20 % des salaires</td>
<td>135,808</td>
</tr>
<tr>
<td>Accommodation @ 13% of Salary / Logeaux à 13 % des salaires</td>
<td>88,145</td>
</tr>
<tr>
<td>Total</td>
<td>2,860,504</td>
</tr>
</tbody>
</table>

| Existing Funding / Financement |

<table>
<thead>
<tr>
<th>Input Factor / Factor d'entraînement</th>
<th>Fiscal Year / Exercice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary / Salaires</td>
<td>310,253</td>
</tr>
<tr>
<td>Operating &amp; Maintenance / Entretien et fonctionnement</td>
<td>158,291</td>
</tr>
<tr>
<td>Capital / Dépenses en capital</td>
<td>-</td>
</tr>
<tr>
<td>Subtotal / Total pariel</td>
<td>468,499</td>
</tr>
<tr>
<td>EBP @ 20% of Salary / RASE à 20 % des salaires</td>
<td>62,052</td>
</tr>
<tr>
<td>Accommodation @ 13% of Salary / Logeaux à 13 % des salaires</td>
<td>40,334</td>
</tr>
<tr>
<td>Total</td>
<td>570,884</td>
</tr>
</tbody>
</table>

Source: Treasury Board of Canada Secretariat 2014
In the specific case of capital asset projects, the Treasury Board Submission template also requires that project costing over the forward years account for the total cost of projects, that is, the estimated operating expenses of acquiring and maintaining an asset. While the appropriations are based on a ‘near-cash’ basis, the Canadian budget process requires capital proposals to include accrual information where the resources are incremental (i.e. not included in the department’s reference levels) and the cash and accrual profiles are materially different. For ‘cash’ appropriations, the full purchase price or development cost of an asset is charged to an appropriation in the year of expenditure. Under full accrual, the costs of developing or acquiring the asset are allocated to the periods over which the asset will be used through amortization. Exhibit 7 illustrates a costing process for the annual accrual expenses of a capital asset acquisition proposal.
Exhibit 7. Example method for calculating annual accrual expense for capital proposals

**Step 1. Cost – Determine the sum of all costs required to make a capital asset operational**
- In the case of acquisition, this can include the purchase price, transportation costs, legal fees, installation costs
- In the case of developed or constructed assets, this includes direct material and labour costs, as well as overhead costs directly attributable to the construction or development activity.

**Step 2. Amortization (depreciation) Period – Determine the useful life of the asset**
- Useful life is the estimate of either the period over which a tangible capital asset is expected to be used or the number of production or similar units that can be obtained from the tangible capital asset. The estimate of useful life should take into account such factors as expected future usage, effects of technological obsolescence, expected wear and tear from use or the passage of time, the maintenance program, studies of similar items retired, and the condition of existing comparable items.
- Since the estimate of the life of an asset is extended into the future, it becomes increasingly difficult to identify a reasonable basis for estimating the useful life. As a result, the maximum amortization period of tangible capital assets other than land is restricted to 40 years except where the federal organization can demonstrate clearly that a longer useful life is expected. Some complex network assets such as water or sewer systems likely have useful lives in excess of 40 years. Indicating a longer useful life for such assets may thus be justified.

**Step 3. Amortization Expense – Allocate the cost of the asset over its useful life**
- The federal government generally uses straight-line amortization, where the cost of the asset is divided evenly by the number of years of useful life to determine the annual amortization expense.
- This amount plus operating costs for the year will be the annual accrual expense.
- This amount will be recorded in each year of the asset’s useful life, starting when the asset is put into use. Since amortization is recorded monthly, annual amortization may be reduced in the first and last years of the asset’s useful life.

5. MTEF budget and forward year cost estimates practices

This part will describe the common and exceptional features of MTEF budget and forward year cost estimates practices across the four survey jurisdictions in two thematic areas:

- application of costing guidelines over the budget and forward years (including the treatment of certain program types, such as capital programs)
- application of costing approaches as part of forecasting methodologies (including the treatment of entitlement programs, the application of non-economic parameters (e.g. escalation factors such as labour and non-labour deflators, demographic and behavioural assumptions etc.) and ‘parameter changes’ (e.g. variations to an economic parameters)).

5.1 Introduction

This part reports the distinguishing characteristics of MTEF budget and forward years cost estimates practices operating across the four survey jurisdictions. The purpose is to isolate the key themes arising from the individual case studies and to help differentiate the application of costing guidelines for specified types of programs, relevant variations in their application in the budget and forward years, and the application of costing approaches in the context of forecasting methodologies. The method is to compare and contrast costing and forecasting methodologies practices using the survey questions, and to identify instructive examples of costing methods and their application. Table 5.1 sets out the costing and forecasting practices in summary form. Again, it must be noted that information on costing and forecasting methodologies was generally not available in the cases of Austria and the Netherlands.

5.2 Application of costing guidelines over the budget and forward years

This theme covers the requirements and guidance for application of costing guidelines over the budget and forward years of the MTEF, including any distinction between capital and recurrent proposals.

All four jurisdictions have an MTEF that makes use of rolling estimates. The key distinction is between Australia and Canada (which utilise ‘indicative’ estimates) and Austria and the Netherlands (which operate expenditure ‘ceilings’). As we have already seen, in the former the forward estimates comprise baseline projections of the ‘cost’ of existing programs and the purpose of the annual budget process is to ensure that incremental budget decisions are
explained in terms of their impact on the forward estimates: once the budget is finalised, the estimates are ‘rolled over’ so that the first forward year becomes the starting budget allocation for the following years’ process and a new outer year is added. In the latter two countries, the forward years represent expenditure ceilings – in the case of the Netherlands inflation adjusted ceilings – within which ministries are expected to manage through redeployment and carryovers. In Austria and the Netherlands, the annual budget process is organised around reprioritisation for new initiatives, such that any adjustments to the ceilings require parliamentary approval, and the use of ‘rolling estimates’ relates primarily to the final ‘extrapolation’ year, which is added annually.

As we have seen, formal costing guidelines are issued in Australia and Canada. In both countries, costing estimates are mandatory only for the preparation of new spending proposals in the Budget process, and are required to be provided for the current budget year and the forward years. In Australia, budget decisions on new policy – what are known as ‘measures’ – generally apply below the program level, meaning they normally constitute sub-program activities that contribute to a program. Estimates are generally updated on a program basis, prepared by departments who enter changes into the Central Budget Management System (CBMS), and then reviewed and validated by the Department of Finance. Adjustments must reflect:

- government decisions or measures since the previous estimates update
- approved movement of funds (changes of estimates between years without any overall increase in program costs)
- parameter updates (changes in economic parameters or program specific parameters, such as the number of people eligible for a conditional transfer payment); and up-to-date departmental and administered program estimates for all years.

However, the Department of Finance advised that, once approved, ‘measures’ taken in the annual budget process are typically consolidated within the baseline of existing programs and are not routinely subject to further separate monitoring and review.

In Canada, the Treasury Board of Canada Secretariat uses the Annual Reference Level Update (ARLU) process to set the expenditure baseline for existing non-statutory programs (the direct program spending component of the fiscal plan reflected in the annual budget). Most expenditure reference levels are set in nominal terms on a three year rolling basis and
departments are expected to generate efficiency gains to offset any unexpected cost increases). Projections in the internal ARLU update are presented over a five year period, whilst the fiscal projections presented in the budget are identified over a rolling two year planning horizon. The ARLU process is a technical exercise that updates the reference levels – it is not intended to consider past performance and the results of programs – and nor is it a mechanism for departments to request new funding. Systematic review of the effectiveness of ongoing programs has only been implemented in the last decade or so.

Table 5.1 MTEF Budget and Forward Year Cost Estimate Practices: Summary of Responses

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>Austria</th>
<th>Canada</th>
<th>The Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Is the MTEF ‘rolling’?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>t + 1 becomes starting point for budget, new t + 3 added</td>
<td>4 year budget ceiling New MTEF has t + 4 added, with t + 3 as starting point</td>
<td>t + 1 becomes starting point for budget, new t + 2 added</td>
<td>4 year budget ceiling New MTEF has t + 4 added, with t + 3 as starting point</td>
</tr>
<tr>
<td><strong>Are there central guidelines for program costings for budget proposals? What is the basis for proposals, i.e. program, sectoral etc.</strong></td>
<td>Yes Standardized Costing Model for New Policy Proposals</td>
<td>No RIA (Regulatory Impact Assessment) new proposals but not cost specific</td>
<td>Yes Costing Guide and Guide to Preparing Treasury Board Submissions ‘New Initiative’</td>
<td>No data</td>
</tr>
<tr>
<td></td>
<td>Program and/or ‘measure’ (initiative related to a program)</td>
<td>Proposals are not ‘program’ based but law or project based</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Is there a distinction between recurrent and capital? Do the latter estimate recurrent costs of capital expenditure?</strong></td>
<td>Yes Separate appropriations NPPs identify recurrent and capital separately</td>
<td>No distinction between capital and recurrent</td>
<td>Yes</td>
<td>No data</td>
</tr>
<tr>
<td></td>
<td>Capital proposals estimate ‘whole-of-life’ costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Do guidelines treat entitlement programs differently?</strong></td>
<td>No Entitlement programs specified by separate legislation – ‘special appropriations’</td>
<td>Yes MTEF distinguishes ‘nominal’ fixed ceiling (75%) and ‘variable’ ceiling (25%) for entitlement activities</td>
<td>No ‘Statutory’ programs</td>
<td>No data</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Are there separate guidelines estimating program costs over the budget and forward</strong></td>
<td>No Standardised costing methods that apply to budget and forward years</td>
<td>No RIA is required for all new laws and projects; however, ‘not directly linked to MTEF or the annual budget’</td>
<td>No Standardised costing methods that apply to budget and forward years</td>
<td>No data</td>
</tr>
</tbody>
</table>
years? Is this applied by centre, agencies or both?

| What are the key components of the forecasting methodologies | Construction rules (‘no policy change’ basis) | Not elaborated Economic forecasts provided by independent body (WIFO) | No data |
| What are the key components of the forecasting methodologies | Treasury Economic Forecasts (e.g. annual growth) are forecasts for budget year and outyear 1 (cyclical variation in economic activity) and projections for outyears 2 and 3 (long term averages) | No data | No data |
| - economic parameters | - estimate construction rules (‘no policy change’) | - cost escalation factors | |

| Do forecasting methodologies differentiate between policy and parameter changes? | Yes | No | No |
| Do forecasting methodologies differentiate between policy and parameter changes? | Budget measures – new or changed policy | No RIA requirements apply to new spending only | No data |
| Do forecasting methodologies differentiate between policy and parameter changes? | Parameter changes – variations to economic parameters | | No data |

As we have noted, new policy initiatives are dealt with in a separate process. When funding is required outside the reference levels, departments will request inclusion of the additional funding in the Estimates through a Treasury Board Submission. These include submissions for funding new programs that Cabinet has already approved, or that seek additional funding for existing programs. Any adjustments are then included in the next eligible supply period and updates to reference levels are included in the next eligible ARLU exercise. The Estimates documents distinguish between new and existing policies, with new policies being highlighted.

Forecasts of expenditures with existing statutory authority are developed for inclusion with the ARLU process and presentation in the Main Estimates and the Reports on Plans and Priorities (RPPs). The forecasts are based on the most recent demographic, economic and/or demand information. Significant changes in forecasts during a fiscal year may be presented in Supplementary Estimates.

One final issue is the extent to which recurrent and capital expenditure is distinguished in the MTEF budget formulation process, and whether this is reflected in requirements to identify
the recurrent cost implications of capital budget proposals. To some extent this is often a function of the ‘dual budgeting’ structure of legal appropriations; in Australia, for example, there is a constitutional requirement to present appropriations separately as ‘recurrent’ and ‘capital’, whereas in Austria there is no such requirement in basic budget laws. In principle, however, it is preferable to ensure that consideration of capital proposals (including the recurrent costs of operating and maintaining assets) is integrated with a single annual budget formulation process.

The most instructive example of integrated capital budgeting comes from Australia. As in many other advanced economies, the Australian MTEF budget process contains a ‘gateway’ review process for major projects, with a focus on major information and communication technology (ICT) capital procurement (Australian Government Information Management Office 2012). The process focuses on the strengthening of business case preparation for large or complex ICT proposals considered as new policy within the annual budget process. In particular, the business case review process is designed to ensure that the costs of new capital expenditure are fully developed prior to requesting funding. For instance, proposed ICT capital projects should reflect a ‘preferred option’ based on a cost-benefit analysis that accounts for ‘whole-of-life’ costs associated with using and maintaining the asset (such as depreciation) and the operational expenses (such as staffing) projected to be required over the forward estimates period. This process is set out in Exhibit 2 (above).

5.3 Application of costing approaches as part of forecasting methodologies

This theme covers requirements and practices for forecasting methodologies including the treatment of entitlement programs, the application of non-economic parameters (e.g. escalation factors such as labour and non-labour deflators, demographic and behavioural assumptions etc.) and ‘parameter changes’ (e.g. variations to an economic parameter or agency operating environment) in costing over the forward estimates period.

The application of costing methods and forecasting methodologies for estimates construction is not an area of practice well supported by open source official documentation. Further, only in Australia and Canada were finance ministries in a position to provide information detailing such approaches, and even then at a high level. Again, Australia provides the most instructive illustration of how non-economic parameters should be applied in constructing and maintaining forward estimates with an MTEF. The role of economic parameter changes is
more settled across the four survey countries, but is characterised by very different institutional arrangements for sourcing and assessing forecasting assumptions.

In Australia, there are three aspects of ‘conventional costing methods’ that are important for constructing and maintaining the forward estimates in Australia’s MTEF: behavioural assumptions for program and policy costings; the treatment of direct and indirect effects; and the use of the contingency reserve as ‘smoothing’ provision in the forward years (see generally, Commonwealth of Australia 2012).

Within the MTEF budget process, policy costings for ‘new measures’ are expected to explain and account for the impact of a change in policy on the behaviour of target groups (the Department of Finance uses the example of a new taxation concession that advantages one activity over another and therefore intended to move resources towards the concessional activity). This type of analysis, however, relies on knowledge about the intended logic of policy interventions and the level of confidence in anticipating behavioural change. Often, reliable information on these types of policy change effects are often unavailable, and while behavioural responses can be informed by previous policy experience, academic studies, or modelling, such estimates require the exercise of significant professional judgment. As a consequence, costings documentation should always require clear explication of what behavioural assumptions are used and the confidence intervals applied (including one of no behavioural change due to lack of information).

A related issue is that costings should only take into account the direct behavioural effects of a policy change, and not indirect (or ‘second-round’) effects. Direct effects can include, for example, changes in the price of goods and services, or their demand and supply, affected by a policy change produced by moving resources between activities affected by the policy change. In Australia, for example, indirect effects are not included in costings because of the uncertainty associated with estimating the scale and timing of the effects and, because they are also likely to occur over a longer timeframe, they often may not occur within the forward estimates period.

A final practice of interest in estimates construction is what is referred to as the Contingency Reserve (CR). This is an aggregate provision within the forward estimates to reflect anticipated events that cannot be assigned to individual programs at the time budget estimates are prepared. It is not a general policy reserve, as the allowances are not appropriated. For our purposes, the most important component of the CR is the conservative bias allowance (CBA)
– set as a percentage of total central general government sector expenses – which recognises the tendency for estimates of existing programs to be revised upwards over time. The CBA is particularly important for demand driven programs where accurate cost estimates can be problematic. The CBA is reduced for earlier forward estimate years as program estimates are progressively updated, thereby decreasing the bias. These adjustments do not realise actual budgetary savings, nor offset spending measures: in other words, the CBA is a device to improve the accuracy of the forward estimates.

Economic and fiscal parameter forecasting obviously play a central role in framing revenue and expenditure projections for budget formulation within an MTEF. The most important of these are assumptions and projections relating to average economic growth rates, rates of employment and unemployment, rates of general and specific price inflation. Each of the surveyed jurisdictions have distinctive institutional arrangements for economic forecasting that help to characterise the role of economic forecasting inputs to costing exercises and hence estimates construction.

In Australia and Canada, economic ministries other than the finance ministry have lead responsibility for economic forecasting: the Treasury in the former, and the Department of Finance in the latter. However, both institutions have adopted different approaches to obtaining and assessing data inputs and assumptions. In Australia, data is sourced from the Australian Bureau of Statistics (ABS), and only supplemented by data from business and consumer survey data. The Treasury uses in-house econometric models to construct forecasts which are subject to review by the Joint Economic Forecasting Group, comprising representatives from key economic and policy departments within the Australian government. By comparison, the Canadian Department of Finance forecasts by surveying a group of private sector forecasters each quarter to ascertain average annual private sector forecasts of real GDP growth, inflation, labour market indicators, and interest and exchange rates. The Canadian Department of Finance is noted for the ‘prudence’ it builds into its approach to fiscal forecasts: its forecasting conventions tend to ensure that where revenue forecast ranges are provided the lower limit is routinely adopted, and that revenue numbers are always rounded down.

The institutional arrangements for economic forecasting in Austria and the Netherlands are a stark contrast. In Austria, the standard economic parameters used to inform the MTEF and budget forecasts, as well as the impact assessment process for proposed new spending, are
sourced from an independent statutory body, the Austrian Institute for Economic Research (WIFO). Similarly, in the Netherlands the Netherlands Bureau for Economic Policy Analysis (CPB) provides independent economic forecasts that are required to be used when preparing MTEF expenditure ceilings; in addition, CPB has a convention-based role in assessing the fiscal consequences (i.e. costs) of competing parties’ policy platforms. Both arrangements are designed to ensure that economic and fiscal forecasting is perceived as transparent and independent of executive government influence.
6. Costing for MTEF: key practice themes

This part will:
- survey key practice themes from the country case study analysis
- describe any convergence and divergence in effective cost practices for MTEF
- describe strengths and weaknesses of cost practice reform strategies.

6.1 Introduction and general observations

The aim of this project was to survey institutional and procedural arrangements governing MTEFs and the role that ‘bottom up’ costing practices play within those frameworks across a selection of OECD countries. The survey describes practices and, where available, provides examples of current practice. The survey was based on three primary data collection methods: a questionnaire issued to the national finance ministries of Australia, Austria, Canada and the Netherlands; follow-up interviews with relevant finance ministry officials in all jurisdictions (except the Netherlands); and document review of publicly available policy and instructional material sourced from those jurisdictions. This descriptive data is set out and summarised in the preceding three thematic chapters.

This concluding chapter will set out some provisional observations on the way costing practices support these MTEF systems. The observations remain provisional because the data sets to which the remarks relate remain incomplete. Having said this, follow-up interviews with finance ministry officials did confirm that the limited scope of practices described by finance ministries in their questionnaire response are an accurate reflection of developing practice areas in their budget and costing systems.

A general remark is that the claimed gap in the technical literature on MTEFs and costing does exist, and reflects an uneven understanding of the relationship in practice. In certain contexts the links are strong (for example, the costing of new program spending and – in certain jurisdictions – of election commitments within multiyear frameworks) but in others the disconnects are even stronger (for instance, fiscal projections based on historical budgeted expenditure levels, little or no expectations about the costing of existing programs outside of special review exercises, and the apparent variability of costing conventions for the forward years). This means that the MTEFs, being principally a mechanism for aggregate fiscal
discipline, continue to emphasise the role of costing in terms of ‘strategic incrementalism’: the notion that marginal spending is approved with more strategic knowledge of its fiscal impact in the forward years. Based on the case studies, there is therefore some support for the proposition that MTEFs in advanced economies continue to operate as ‘top-down’ expenditure estimates (or allocations) based largely on historical budgeted expenditure levels rather than the idealized systematic ‘bottom-up’ costing of both existing and new programs. The following sections set out more specific observations.

6.2 The role of ‘bottom up’ costing depends on the ‘type’ of MTEF

As noted earlier, and as the case studies confirm, whilst there is no ‘typical’ MTEF most variations do contain both ‘top-down’ and ‘bottom-up’ components and there is also some evidence of a prevailing view that strategic elements of fiscal forecasting and budget processes should exclude spending ministries (also discussed below). In principle, an MTEF has greatest technical efficacy when it constructs estimates based on spending ministry informed costing of programs, rather than finance ministry extrapolation of historical funding levels. (Both orientations can, of course, be distinguished from ‘bottom-up’ costing as a type of annual ‘zero-based’ budgeting exercise, which is plainly beyond what is administratively feasible for any finance ministry). This in turn is dependent on:

- how budget programs are defined, and at what level of disaggregation
- with what level of disaggregation the forward estimates are reported
- the extent to which expenditure ceilings are ‘hard’ and actual program costs are related to the budgeted ceilings (i.e. the focus is aggregate control).

For example, the case material suggests that the focus on costing is stronger in Australia where a rolling MTEF operates with budget and forward year estimates applying at the equivalent of program level and – in comparative terms – highly specified program structures. By way of contrast, the ‘binding’ multiyear expenditure ceilings operating in Austria and the Netherlands categorise spending at relatively high sectoral and ministry levels and place a premium on spending ministries reprioritising resources within the ceiling.
6.3 The focus of costing and cost information is new programs or expanded existing programs

Where they are specified, costing practices are generally expected to be used across the entire budget in case study countries, but in practice the focus is overwhelmingly on new spending on new programs or expanded existing programs. This too appears to be a function of the type of MTEF and the level of integration with the annual budget cycle. In both Australia and Canada, the respective MTEF budget processes are framed around the increment and the emphasis of conventional costing is on ‘new policy proposals’ for review during the annual budget cycle: in Australia the ‘no policy change’ basis for the forward estimates installs a clear separation between ‘policy’ and ‘parameter’ changes, and in Canada automatic updates of ‘reference levels’ means the focus of the estimates budget process is on new spending outside of those reference levels. In both countries the concentration on new spending means that ‘bottom-up’ costing is not routine for the base (except of course where ‘re prioritisation’ review initiatives are conducted, for example, increasingly on a systematic basis in Canada). In Austria and the Netherlands, ‘hard’ expenditure ceilings for multiyear periods mean that new spending is understood in terms of reallocation of existing program spend. In Austria this appears to be reinforced by the location of high level ‘costing’ tools within the regulatory impact assessment process which, whilst designated as a ‘gateway’ for assessing newly reallocated spending initiatives, is (according to the BMF) directly and technically linked neither to the MTEF nor the annual budget process. Further, in both Austria and the Netherlands variations to the ceilings (and hence ‘new’ spending outside these limits) requires parliamentary approval and are by design very strict in their application.

6.4 Capacity to define existing and new policy is important

By definition, all of the MTEF case studies consider ‘new policy’ within the annual budget cycle. However, because they have rolling MTEFs, Australia and to a lesser degree Canada place greater emphasis on distinguishing the base and new programs (although in practice approved budget measures are quickly subsumed into the base, and in Australia especially, with little or no subsequent review). In part this is reflected in the elaborated requirements for specifying programs and sub-programs: the ‘outcomes and programs’ structure in Australia and the ‘program alignment architecture’ in Canada (noting also that budget program structure in the Netherlands is being refined under the most recent ‘accountable budgeting’ or VBTB reforms). In addition, both Australia and Canada – and in prospect Austria and the Netherlands – promote close integration between program budget structure and spending
ministry budget and program management, with the expectation that spending ministries will produce and utilise cost information for both purposes. Highly aggregated budget categories – and highly decentralised ministry financial stewardship responsibilities – in both Austria and the Netherlands appear to place less emphasis on the role of bottom-up costing of programs than simply with managing within fixed ceilings.

6.5 The analytical distinction between conventional costing practices and forecasting practices is instructive

Implicitly in all case study jurisdictions, conventional costing of programs and activities is framed as a spending agency responsibility requiring specialist technical capabilities. However, for the specific purpose of the MTEF, conventional costing is framed by estimates forecasting methodologies and the assumptions about how costings are to be projected into future years. In Australia and Canada expenditure forecasting methods include both general forecasting methods (for example, deflators for labour and non-labour costs, average labour costs etc.) and differential methods that are more likely to apply to certain categories of program activities (for instance, caseload adjustments, or forecasting for entitlements governed by legislated criteria). The interaction between conventional costing and forecasting methods, and the nature and defensibility of assumptions about unit cost, demand and behavioural change means that costing is an inexact science, and highly contestable. In Austria and the Netherlands the role of ‘independent’ fiscal forecasters is an important point of difference. In these countries, economic parameter adjustments and in some cases program cost assumptions are determined externally – for example, in the Netherlands, fiscal costing exercises of party manifestos during elections – which means that the role of finance ministries is weighted towards enforcing the multiyear expenditure ceilings rather than challenging the merit of new policy and the reasonableness of associated costings.

6.6 Cost information (for new policy) is mandated, but costing methods are only recommended

This is commonly the case, and for entirely defensible reasons. Finance ministries in both Australia and Canada issue cost templates for presenting program cost information within the annual Budget cycle (and more generally in support of Cabinet consideration of new policy) but the basis of costing – the methods selected and the assumptions used – are often left to the discretion of spending ministries. The Canadian case is a good illustration. There, comprehensive and detailed cost guidelines are framed in terms of ‘costing for purpose’,
meaning the application of cost methods, the object of costing and the assumptions underpinning cost assignment should be specific to the costing exercise. In these circumstances, costing is effectively a menu of techniques whose application in the context of budget and forward year estimates is *negotiated rather than directed*. It should also not go unnoticed that because costing is in effect contingency-based, it makes it difficult, were it an objective, to compare common cost objects across government activities in a systematic way. Having said this, comparisons within programs and departments are still possible.
7. Case study institutional summaries

Case 1. Australia

The Australian federal government was the first advanced economy to implement what came to be seen as the basic infrastructure for a medium term expenditure framework (MTEF) (World Bank 2013, 10). The MTEF system comprises two key components: the forward estimates system, and the Cabinet budget committee system (the following discussion draws on Blondal et.al. 2008).

The forward estimates system

The forward estimates system evolved during the early-to-mid 1980s and took its current form in 1987 when one year budget estimates were replaced with rolling baseline projections of government revenues and expenditures for the budget year and three forward years on a ‘no policy change’ basis, where:

- ‘rolling baseline projections’ means that once the budget is passed, the first year of the forward estimates becomes the base year for next year’s budget, and another forward year is added to the estimates (refer Figure 2.1, above), and
- ‘no policy change’ means that existing program expenditure is assumed to be constant to explain the basis for any variations (see below).

The forward estimates comprise the cost projections of all existing programs and does not allow for the introduction of new spending (new programs or expanded existing programs); the purpose of the annual budget process is to make sure that incremental budget decisions are ‘strategic’ in terms of their impact on the forward estimates. This means that each year’s budget reconciles the budget year with the first outyear of the previous year’s forward estimates and explains variations as either:

- new policy decisions, i.e. new programs or expansion of existing programs
- changes in non-economic parameters, i.e. number of beneficiaries for an entitlement program
adjustments to economic parameters, i.e. price deflators or economic growth forecasts.

The forward estimates are published twice a year: in the Budget as part of the Mid-Year Economic and Fiscal Outlook (MYEFO) (required by the Charter of Budget Honesty Act 1998, also see below).

The forward estimates are managed actively by the Department of Finance (the finance ministry, see below) during the budget year to ensure that the impact of new policy decisions and parameter changes are incorporated. Spending ministries prepare initial costings of new spending initiatives and the role of Finance is to validate the accuracy and reasonableness of the costing. The Department of Finance determines the methodology for ongoing costing of programs (discussed in Part 5).

*The Cabinet budget committee system*

The Cabinet budget committee system too has evolved over time but in essence has comprised two standing committees of senior ministers, chaired either by the Prime Minister or the Minister of Finance, whose roles are to set and enforce strategic fiscal objectives. These committees include a Strategic Budget Committee, which sets budget and policy objectives, as well as overall targets for expenditure reductions at the start of the annual budget process, and the Expenditure Review Committee (ERC), which has an ongoing operational role during the process to determine new spending and offset savings, monitor in-year budget compliance and conduct a program of spending reviews to inform future budget processes.

The Cabinet committees are supported by three central agencies who work closely together but which have distinct and complementary roles in the budget process:

- The Department of Finance and Deregulation (Finance) which coordinates the expenditure side of the budget and manages the budget framework. Its main role is to maintain the forward estimates, review government expenditure and propose reallocations. Finance is the chief advisor to the ERC.
- The Treasury which coordinates the revenue side of the budget. Its main role during the budget process is to advise on taxation measures as well as the ‘structural adjustment’ impact on the economy of existing and proposed expenditure.
The Department of the Prime Minister and Cabinet which coordinates the Cabinet procedures supporting the budget process and, as chief advisor to the Prime Minister, has a principal role in setting the policy agenda framing the annual budget process.

Australia: MTEF and Budget calendar (fiscal year 1 July to 30 June)

<table>
<thead>
<tr>
<th>September-October</th>
<th>Finance issues budget circular on budget process and timetable, and operational rules for budget submissions etc., Prime Minister invites portfolio Ministers to submit new spending proposals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>November-December</td>
<td>Pre-budget ERC sets priorities for coming budget and considers portfolio ministers’ proposals and likely pressures on agency budgets – forward estimates (baselines) are updated by MYEFO</td>
</tr>
<tr>
<td>January-February</td>
<td>Agencies submit portfolio budget submissions for new policy and savings options based on outcomes of pre-budget ERC and ‘trilateral’ review of submissions – forward estimates (baselines) updated for ERC process</td>
</tr>
<tr>
<td>March</td>
<td>ERC meets to determine agency submissions to recommend for funding to Budget Committee</td>
</tr>
<tr>
<td>April</td>
<td>Budget Committee endorses ERC recommendations and finalises Budget – forward estimates (baselines) updated for final Budget</td>
</tr>
<tr>
<td>May</td>
<td>Budget (Appropriation Bills) presented to Parliament</td>
</tr>
</tbody>
</table>

None of these institutional arrangements have a legal basis. However, the *Charter of Budget Honesty Act 1998* does provide a principles-based legal framework for the setting of fiscal objectives and the reporting of fiscal performance, and this incorporates the policy practices of the forward estimates system. In particular the Act requires governments to publish a ‘Fiscal Strategy Statement’ as part of the annual budget documentation that:

- specifies long term fiscal objectives and the fiscal measures against which fiscal policy will be assessed, e.g. maintain budget balance over the medium term
- specifies for the budget year and the three forward years the government’s fiscal targets and the expected outcomes for the fiscal measures
- explains how the fiscal objectives relate to the Act’s principles of sound fiscal management.
The Australian fiscal framework is noteworthy because it is largely ‘principles-based’ rather than ‘rules-based’, i.e. it does not mandate fiscal targets but rather leaves the interpretation of fiscal principles – and ultimately their justification – to the government of the day.

**Budget program structures and guidelines**

In Australia, all general government sector entities are required to budget, measure performance and report on an ‘outcomes and programs’ basis. The ‘outcomes statement’ defines the purpose of appropriations, and the Portfolio Budget Statements set out programs in more detail.

A program is defined in the Programs Policy and Approval Process as: ‘Programs deliver benefits, services or transfer payments to individuals, industry/business or the community as a whole and are primary vehicles for government agencies to achieve the intended results of their outcome statements’ (Australian Department of Finance and Deregulation 2009). The Department of Finance issues guidelines that contain four key criteria for specifying programs:

- activities or groups of activities that contribute to the intended results
- must be ongoing in nature (minimum 5 years)
- material in size of annual expenditure (greater than $50m)
- must map to a single GFS sub-function and single government outcomes statement.

A program is the minimum level of reporting required for budget documentation, and is recorded in both the Central Budget Management System (CBMS) and the Portfolio Budget Statements (PBS) – program data must be consistent between CBMS and PBS.
Case 2. Austria

The Austrian federal government is a relatively late mover in implementing a MTEF, and its current reforms are still in progress. Until the mid-1990s budgeting was ‘very traditional, cash-based, highly legalistic and input-oriented’ and initial forays into strategic budget reform, which included top-down budgeting and the piloting of new forms of budget flexibility, were quite tentative (Steger 2010, 2).

It was only in 2004 that the Austrian Federal Ministry of Finance (BMF) commenced the development and negotiation of fundamental reform of budget systems. A comprehensive package, comprising a medium term expenditure framework, global budgets, performance budgeting, accrual reporting, and financial management incentive mechanisms, is currently being implemented in two stages (BMF 2010; BMF 2011a; Steger 2010).

Stage 1 of budget reform

Stage 1 of budget reform commenced in 2009 and is based on amendments to the constitution. BMF’s strategy was to shepherd reform implementation by entrenching new budget principles and a timetable for their completion (by 2012) in the constitution (Steger 2010, 6-8). Following a protracted multi-party policy development process, in 2007 Parliament unanimously passed two reform bills – one to amend the constitution and a second detailed reform bill. Amendments to the constitution (Article 51 of the Constitution) focused on ‘budgeting principles’, replacing traditional budget principles of economy and regularity with four ‘outcomes-oriented’ principles – outcomes, efficiency, transparency and ‘true and fair view’ – to commence in 2013. The detailed reform bill (the Federal Organic Budget Law 2009) introduced both a MTEF and budget flexibility for spending ministries.

The MTEF contains legally binding expenditure ceilings for headings four years in advance on a rolling basis (i.e. t+4 is added annually). The MTEF budget structure comprises ‘headings’ (which are equivalent to policy sectors) and ‘chapters’ (which are equivalent to ministries or smaller units), although budget chapters are used to structure the annual budget law. Budget chapters are binding for the budget year. There are currently five headings, each of which is a group of chapters; and each chapter is assigned to a specific ministry. For example, the ‘law and security’ heading groups six chapters that align with the ministries of justice, interior, defence, foreign affairs, finance and chancellery.
The MTEF distinguishes two different expenditure ceilings:

- a nominal fixed ceiling (denominated in €) that applies to about 75% of expenditure
- a variable ceiling that applies to expenditure related to the business cycle, that cannot be estimated accurately in advance and is determined by defined parameters, e.g. eligibility criteria for unemployment benefits and social service payments.

The MTEF forward year projections are not prepared on a ‘no policy change’ basis: the ‘no policy change’ assumptions are used only for a 30 year long run fiscal projection that is prepared separately. (However, as discussed, the MTEF does distinguish between fixed and variable ceilings, so the variable component permits flexibility). In addition, the forward year projections do not distinguish between ‘existing’ and ‘new’ programs.

The MTEF only sets out aggregate budget authorisations, i.e. expenditure ceilings for headings and chapters. These can only be changed by the parliament by amending the MTEF laws, in which case the government must explain why the planning assumptions for the budget need to change. The first MTEF for the years 2009-2013 was approved by the parliament in 2009, and has only been revised on average once a year.

The MTEF applies a budget reform principle of ‘Every minister his/her own finance minister’. It permits the BMF to enforce binding expenditure ceilings and it provides ‘carryover’ incentives for spending ministries to be efficient: if ministries save money within the expenditure ceilings they can retain funds for use in later years, even for different purposes (Steger 2010, 8-9). The MTEF also sets ceilings for the highest permissible personnel capacity for each line ministry (BMF 2011a).

Stage 2 of budget reform

Stage 2 of budget reform (the Federal Organic Budget Act 2009) commenced at the start of 2013 and is in progress. These changes are designed to support resource management within the new MTEF and include:

- rationalisation of appropriation lines within chapters from over 1000 to less than 100 ‘global budgets’ that will mean that ministries’ detailed budgets are indicative rather than binding, and that ministries have flexibility to redeploy funds within their global budget
- budgeting as part of a performance model where (a) the MTEF budget strategy sets out outcomes for ministries and the strategies to achieve them in the four year period (b) the annual budget bill sets out outcomes and performance information for each budget chapter that are part of the budget authorisation, and (c) the global budget within chapters set out outputs and performance information that are part of the budget authorisation.

*Program costing guidelines and practices*

In Austria costing information must be included in all explanations to laws presented to Parliament as well as major projects: according to the BMF it is ‘not only used implicitly for the MTEF, but also for the long term impact and other impacts on public budgets’.

As part of the second stage of budget reform, the *Federal Organic Budget Act 2013* (Articles 17 and 18) provides for ‘outcome oriented impact assessment’. This is supported by an automated Regulatory Impact Assessment (RIA) process tool that is designed to identify the impact dimensions of outcomes and outputs early in the legislative process. The RIA process tool is web-enabled and the home portal refers to ‘calculators’, although it is not clear whether these are costing calculators ([www.wfa.gv.at/English_start.htm](http://www.wfa.gv.at/English_start.htm)). The accompanying *Regulatory Impact Assessment Guideline* (BFM 2012c) sets out how the RIA process informs the preparation of outcome and output statements in support of the annual budget cycle; however cost information and its production are not described as a principal requirement. The RIA guidelines apply only to new spending or projects.

The Austrian MTEF sets out ‘hard’ expenditure ceilings for the budget year and the following three years. When the new MTEF is prepared, the year t + 4 is added and the year t + 3 is the starting point for new year t + 4. Revised economic forecasts or new government decisions might also vary the existing MTEF for years t + 1 to t+ 3, but any changes to expenditure ceilings require parliamentary approval.

Budget proposals are not prepared on a program basis, but rather the highly aggregated ‘heading’ and ‘chapter’ structure for expenditure, i.e. the sectoral and ministry structure. Within the MTEF ‘trade-off’ arrangements, individual Ministries have the responsibility to fund their activities within the budget ceilings. Similarly, there is no distinction between recurrent and capital costs in budget proposals – line ministries must fund activities (including capital projects) within the MTEF ceilings. According to the BMF, no costing
information is necessary for the budget proposal ‘as the budget is based on internal BMF calculations and/or proposals coming from the line ministries, which are validated by the BMF’.

All new projects are subject to the ‘outcome oriented impact assessment’ process (BMF 2012) ‘which includes information about medium- and long-term costs’. According to the BMF, ‘[t]hey are anyhow not directly linked to the MTEF or the annual budget as line ministries have the full responsibility for their individual budgets’.

The ‘outcome oriented impact assessment’ process uses standardized economic parameters as the basis for MTEF and budget forecasts – these are sourced from an independent body, the Austrian Institute for Economic Research (WIFO). However, the impact assessment process applies only to new spending proposed in the budget.

The BMF advised that forecasting methodologies do not differentiate between policy changes and parameter changes except to note that (a) annual budget process considers new spending only and (b) variable ceiling component of the MTEF does acknowledge changes linked to pre-defined program parameters.

The BMF advised that whilst there are no explicit allowances for cost contingencies, MTEF ceilings are in part ‘variable’ (i.e. the component relating to entitlement program funding).
Case 3. Canada

The Canadian federal government does not have a discrete process for a MTEF. Instead, several separate but interrelated processes are used within the Expenditure Management System (EMS), the framework for developing and implementing the government’s spending plans and priorities within the limits established by the Budget. A new EMS was implemented in June 2007. It is the most recent iteration of strategic budget reform in Canada, which can be traced back to the Policy and Expenditure Management System (PEMS) multi-year envelop budget process of the of the early 1980s (Good and Lindquist 2010, 96-105).

The new EMS comprises four interrelated processes:

- the Budget process
- multiyear planning for individual organizations
- the program alignment architecture and stronger focus on program results
- spending reviews.

The budget process

The Federal Budget sets out policy objectives as well as macroeconomic and fiscal targets and projections. The ‘Budget’ is tabled by the Minister of Finance and is the government’s overall fiscal plan, including new policy initiatives.

Following the Federal Budget, organizations prepare submissions to the Treasury Board of Canada for review and challenge by the Secretariat and approval by the Board. Treasury Board approves these detailed resource allocation plans for initiatives previously approved by Cabinet or included in the federal budget.

Once Treasury Board approval is granted, information on planned expenditures is presented to Parliament through tabling of Estimates publications and the introduction of the supply bills which, once passed into legislation, become appropriation acts. The ‘Estimates’ are tabled by the President of the Treasury Board and are the detailed plans for government expenditure, by department and agency.

The Estimates comprise three components:
• Part I – Government Expenditure Plan (provides an overview of planned expenditures detailed in Part II and changes in expenditures from previous fiscal years as well as information on major statutory transfer payments and public debt charges)
• Part II – Main Estimates (detailed plans for both statutory expenditures and expenditures that are voted for coming fiscal year, by department, but may not include funding for new policy announced in the Budget which require Treasury Board and parliamentary approval, which would normally be sought in Supplementary Estimates)
• Part III – Reports on Plans and Priorities (RPPs) which set out expenditure plans, priorities, objectives and performance measures for each appropriated department over a three year time horizon. The corresponding Departmental Performance Reports (DPRs) are produced 18 months later and describe performance in relation to planned expenditure and results in the RPPs (Muhleisen, Danninger, Hauner, Krajnyak and Sutton 2005, 13-14).

The first year of the RPP document supplements information contained in the Main Estimates. The RPPs are tabled in Parliament and are used by parliamentarians in their consideration of the Estimates.

Canada: MTEF and Budget calendar (fiscal year 1 April to 31 March)

<table>
<thead>
<tr>
<th>June to September</th>
<th>Cabinet priority-setting retreats, Fiscal framework updates (Department of Finance updates economic parameters, Departments prepare and submit new policy submissions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>September to November</td>
<td>Cabinet committees review new policy initiatives, Finance issues Economic and Fiscal Update, Treasury Board Secretariat updates operating costs through Annual Reference Level Update</td>
</tr>
<tr>
<td>January</td>
<td>Cabinet reviews budget strategy</td>
</tr>
<tr>
<td>Early February</td>
<td>PM and Minister of Finance make final budget decisions</td>
</tr>
<tr>
<td>Late February</td>
<td>Minister of Finance introduces Budget, President of the Treasury Board introduces Estimates, Standing Committees begin examination of Estimates</td>
</tr>
<tr>
<td>Late March</td>
<td>President of the Treasury Board introduces Reports on Plans and Priorities for each department, Parliament grants Interim Supply to end-June</td>
</tr>
<tr>
<td>1 April</td>
<td>Fiscal year starts</td>
</tr>
<tr>
<td>Late May</td>
<td>Standing Committees report on the Estimates</td>
</tr>
<tr>
<td>Late June</td>
<td>Approval of Estimates</td>
</tr>
</tbody>
</table>
Multi-year planning for individual organizations

The Annual Reference Level Update (ARLU) process puts together ongoing budget plans for the non-statutory programs of individual spending agencies based on previous Treasury Board approvals. The reference levels are, in effect, the forward estimates of expenditure prepared on a three year rolling basis. Parliament, however, approves planned spending on an annual basis.

In addition, forecasts of expenditures with existing statutory authority (i.e. already approved by Parliament through specific legislation) are developed for inclusion in the Main Estimates and RPPs. The forecasts are based on the most recent demographic, economic and/or demand information. Significant changes in forecasts during a fiscal year may be presented in Supplementary Estimates.

The forward year projections in the departmental RPPs include both the voted and statutory amount according to an individual department’s program structure. Information on the same program structure is shown in Main and Supplementary Estimates and Departmental Performance Reports.

The Federal Budget announces new programs. Beginning in fiscal 2013-14, Supplementary Estimates documents highlight funding for new initiatives identified in a Budget. Projections made in the Federal Budget are updated later in the fiscal year, in the Update of Economic and Fiscal Projections.

Program alignment architecture (Policy on Management, Resources and Results Structure)

Introduced in 2005 this policy ensures a common approach to collecting, managing and reporting financial and non-financial information. The policy applies to all departments and agencies and provides detailed information on all government programs. It links resources to expected results, and establishes the same structure for both internal decision-making and external accountability.

The key mechanism is the ‘program alignment architecture’ (PAA) which is a common program structure based on a program logic methodology. The program hierarchy is linked to strategic outcomes and has three levels: ‘program’, ‘sub-program’ and ‘sub-sub-programs’. The ‘strategic outcomes’ and ‘program’ level activities are approved by the Treasury Board.
and inventory of ‘sub-program’ and ‘sub-sub programs’ levels endorsed by the Treasury Board Secretariat.

Key criteria for a PAA include that it:

- identifies and groups related activities and links them logically to the strategic outcomes they support
- links planned resource allocations to each program at all levels and against which financial results are reported
- links performance measures to each program at all levels and for which actual results are reported
- structures the Estimates display and parliamentary reporting
- serves as the basis for (informing) resource allocation by Parliament, the Treasury Board and departmental management.

**Strategic and Spending Reviews**

The Strategic Review and Strategic Operating Review processes seek to improve the value for money of public spending, in addition to reinforcing fiscal discipline and strategic prioritisation. Under the new EMS, all federal departments and agencies that receive appropriations are required to undertake a strategic review of all their direct program spending and the operating costs of their major statutory programs on a cyclical (four year) basis.

The reviews use the PAA as the framework for assessing the continuing need for a program, the efficiency and effectiveness of activities, and management performance. Once departments have completed a comprehensive review of all of their programs, they are required to identify a total of 5 per cent of their program spending from their lowest-priority and lowest-performing programs. These funds are proposed for reallocation to higher priorities. Strategic reviews are done at the same time every year in order to put recommendations forward for consideration as part of the annual budget planning process. Savings achieved through strategic reviews are redirected to budget priorities. Strategic review results are announced through the annual budget.

A cycle of strategic reviews were completed from 2007 to 2010, and in 2011 the Government completed a Strategic and Operating Review. These reviews have yielded a range of positive
outcomes, including deliberate and informed decision-making, material reductions to program spending, and an improved capacity to respond to changing fiscal imperatives.

The Treasury Board Secretariat is currently leading a series of improvements to strengthen expenditure management and enhance the tools that are used to develop and implement the government's spending plans. These measures will improve spending decisions and strengthen the government’s capacity to contain costs. These improvements are focused on three areas: new spending, existing spending, and the renewal of funding that is set to expire.

- **New spending decisions** will be based on more robust information by integrating more rigorous costing analysis and stronger contextual information into decision making. To this end, the Treasury Board Secretariat is requiring more stringent Chief Financial Officer Attestations, developing better costing tools and standards, and making more effective use of departmental financial systems; and strengthening the capacity to challenge costing information by creating a new Costing Centre of Expertise in the Office of the Comptroller General.

- **The Treasury Board Secretariat** is also instituting a cycle of ongoing, reviews of existing spending. These reviews will ensure that resources are directed to programs and activities that remain priorities of the government and achieve value for money for taxpayers. The focus and terms of these reviews will be customized from year-to-year to reflect the specific objectives and goals of each particular review.

- **Spending on initiatives set to expire**, known as ‘sun-setting’ initiatives, will be examined closely by the Treasury Board on an annual basis to determine whether and on what basis the funding should be renewed.

The EMS is overseen by four key institutional actors:

- **The Department of Finance** ensures aggregate fiscal discipline. It maintains macroeconomic models that project revenues and expenditures (the fiscal framework), determines total spending levels and prepares the Federal Budget and Update of Economic and Fiscal Projections, both of which are delivered by the Minister of Finance.

- **The Privy Council Office** supports priority setting within the budget process. It advises the Prime Minister and Cabinet and manages the Cabinet system supporting the Budget process.
The Treasury Board of Canada is a statutory committee of Cabinet established under the Financial Administration Act. It consists of six ministers, including the President of the Treasury Board (Chairperson) and the Minister of Finance, who meet regularly to consider submissions sponsored by federal organizations. The Treasury Board is responsible for preparing the government expenditure plan tabled annually in Parliament (Estimates) and for monitoring program spending in government departments and agencies.

The Treasury Board is supported by the Treasury Board of Canada Secretariat. The Secretariat is the expenditure manager. It advises the Treasury Board on effective allocation of expenditure and ensures operational efficiency. The Secretariat supports Treasury Board approval of operational plans, resource appropriation for new programs and determination of resourcing for existing programs, as well as monitoring compliance with management policies.
Case 4. The Netherlands

The Netherlands MTEF is not law-based, but implemented through coalition agreements for government formation (The Netherlands Ministry of Finance 2013). Budget formulation process in the Netherlands comprises two phases: first, when a new government takes power and establishes its overall budgetary policy for its term of office, and second, the annual budget process that translates the budgetary policy into operational terms for all government activities (Blondel and Kristensen 2002). A new budget formulation process was adopted in 1994 following the report of the Study Group on the Budget Margin. In part the reforms were a response to the fiscal management requirements for qualification to the European Monetary Union.

Coalition Agreement

The first phase is the Coalition Agreement process. Government formation in the Netherlands is dependent on party coalitions within the parliament. When a new government is created it announces its major policy objectives in a document known as the Coalition Agreement. The key elements of a Coalition Agreement include:

- apply for a government’s four year term of office
- fixed maximum caps for expenditure in each sector
- maximum caps are in real terms, based on cautious economic assumptions (to reduce the risk that the budget outturn being worse than expected) that are provided by an independent economic forecaster, the Netherlands Bureau for Economic Policy Analysis (or Central Planning Bureau, CPB)
- sets out explicit rules for dealing with windfalls and shortfalls.

Budget process

The second phase is the annual budget formulation process, which is framed tightly by the Coalition Agreement. In this context, ‘[t]he key role of the Minister of Finance and the Ministry of Finance each year is to ensure that the Coalition Agreement’s budget rules are adhered to’ (Blondel and Kristensen 2002, 48).
The Netherlands: MTEF and Budget calendar (fiscal year 1 January to 31 December)

<table>
<thead>
<tr>
<th>Month</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>November</td>
<td>Minister of Finance issues budget circular to Ministers on budget procedures</td>
</tr>
<tr>
<td>January-March</td>
<td>CPB provides economic parameter updates, Finance Ministry updates multi-year expenditure projections, spending Ministries prepare policy expenditure proposals, bilateral budget discussions</td>
</tr>
<tr>
<td>March</td>
<td>Spending Ministries submit Policy Letters to the Finance Ministry outlining new policy expenditure proposals (these focus only on any changes from previous multi-year forecasts for existing policy and on any new policy initiatives)</td>
</tr>
<tr>
<td>April</td>
<td>Cabinet (Council of Ministers) meets to decide the budget framework, Finance Ministry issues Letters of Totals setting out the maximum level of expenditure for each ministry in the coming year</td>
</tr>
<tr>
<td>May-July</td>
<td>Ministers submit preliminary draft budgets to the Ministry of Finance for review and negotiation, Ministry of Finance prepares Budget Memorandum setting out fiscal policy and economic forecasts</td>
</tr>
<tr>
<td>August</td>
<td>CPB provides revised economic parameters, and final expenditure budget decisions taken</td>
</tr>
<tr>
<td>September</td>
<td>Minister of Finance presents draft budget (a Budget Memorandum accompanied by 23 separate Budget bills) to Parliament</td>
</tr>
<tr>
<td>October</td>
<td>Parliament adopts budget (Budget Investigation Sessions are held by sectoral committees but there is no overall scrutiny of the Budget totals)</td>
</tr>
</tbody>
</table>

The Dutch budget is divided into three separate ‘sectors: the core budget sector, the health care sector and the labour market sector. The ‘core’ budget sector is the responsibility of a number of ministers, with each minister responsible for his own budget. The Coalition Agreement establishes separate caps for each of the three sectors, but also incorporates multi-year expenditure projections for each ministry as the basis for sub-caps for each minister in the ‘core’ sector.

The expenditure budget is a fixed real expenditure framework – total outlays are set for each year of a government’s office term, including a maximum level of real expenditure for each sector. The time frame is four years. The Government presents revised budget estimates for the Coalition Agreement three times a year – Spring memorandum, budget memorandum and autumn memorandum – and these are based on forecasts provided by the independent CPB.

Transfers are permitted between sectors, and between sub-caps within the core sector, but surpluses in one area can only be used to fund existing policies that are experiencing higher costs than projected, and the consent of Cabinet is required to finance new programs or
expanded existing programs. If a budget overrun occurs it is the responsibility of the relevant minister to manage it, usually reducing another part of his budget to finance the overrun.

**Budget program structure**

In the Netherlands, Budget program structures are determined by spending ministries within the annual budget preparation phase, but are subject to both Ministry of Finance approval and Council of Ministers (Cabinet) endorsement. The annual budget law is divided into chapters, and each chapter is subdivided into budget articles called ‘policy articles’ which are the line item level of authorisation (The Netherlands Ministry of Finance 2013; de Jong, van Beek and Posthumus 2013).

The policy article is the unit (program level) for budget planning and reporting, and integrates planned expenditure, performance planning and cost accounting. Each policy article has one general objective and comprises three or four ‘sub-articles’ (the sub-program level) each with operational objectives and performance indicators. There is also a second category of budget article called ‘non-policy’ articles which are ‘in place for more technical reasons, such as dividing residual overhead costs or to cover unforseen costs’ (The Netherlands Ministry of Finance 2013; de Jong, van Beek and Posthumus 2013). In 2013 there were approximately 90 policy articles and 35 non policy articles.

Under the ‘Policy Budgets and Policy Accountability’ (VBTB) performance budget reforms (1999-2012), parliament reduced its line-item input control of budgets for expanded output and outcome information. This meant there was less detailed financial information provided for policy articles, and during this period they only distinguished between direct and indirect costs at the ‘sub-article’ level. Under VBTB for each ministry policy articles were reported with two highly aggregated line items: program expenses and ministry ‘organizational expenses’ (apportioned across policy articles). Under the current ‘Accountable Budgeting’ reforms (2013), major changes were made to budget reporting so that each ministry now discloses separate ‘policy articles’ and a single ‘organisational expenses’ article. The policy article reports program expenses (in terms of twelve categories of financial instruments, such as subsidies, grants, purchases from private sector etc) and the organisational expenses article is single non-policy article per ministry (covering policy making and policy execution costs of each ministry) (see de Jong, van Beek and Posthumus 2013, 21-22; Netherlands Ministry of Finance 2012, 3).
References and resources

General – Medium term expenditure frameworks and other


General – Costing and/or forecasting methodologies


Case specific – Australia


Case specific – Austria


Case specific – Canada


Case specific – The Netherlands


Annex 1. Finance Ministry Interviews

Follow-up interviews were conducted with the following officials.

Australian Department of Finance

Mr Gareth Hall, Assistant Secretary, Resource Framework and Reporting Branch
Dr Leanne Blackley, Director, Decision Support and Liaison, Budget Coordination Branch
Ms Amanda Lee, Assistant Secretary, Budget Coordination Branch
Ms Jennifer Torres, Acting Assistant Secretary, Budget Analysis Branch
(Date of interview: 19 December 2013)

Federal Ministry of Finance of Austria

Mr Tobias Orischnig, Budget Expert, Directorate General II (Budget and Public Finances)
(Date of interview: 11 November 2013)

Treasury Board Secretariat of Canada

Mr George Samiotis, Director, Expenditure Management Sector
Ms Sally Thornton, Deputy Assistant Secretary, Expenditure Management Sector
(Date of interview: 15 November 2013)
Annex 2. Finance Ministry Questionnaire

Governance Partnership Facility Trust Fund Project

Review of International Practices for Determining Medium-Term Resource Needs of Spending Agencies

Costing for Medium Term Expenditure Frameworks

QUESTIONNAIRE FOR CENTRAL BUDGET AGENCIES

Background

- The World Bank has received funding from the Governance Partnership Facility Trust Fund to advance knowledge on practical aspects of the implementation of medium term expenditure frameworks (MTEFs). The aim is to improve program costing practices in Indonesia and selected states in Brazil.
- The project will review international practices for determining medium term resource needs of spending agencies (what is also called ‘bottom-up costing’ for MTEFs). The project will compile information on practices and methodologies used by selected OECD countries to determine program costs as part of their medium term expenditure planning.
- This questionnaire is the key data collection tool for the project (and may be supplemented by follow-up interviews with relevant officials). It is being issued only to central budget agencies in case study countries. Your jurisdiction has been selected as one of four cases for comparison.
- Responses to this questionnaire will form the basis of a World Bank report. A draft of the report will be made available for your comment.

Instructions

- This questionnaire asks about MTEF costing practices in your jurisdiction. It consists of four sections:
  A. Institutional arrangements and procedures
  B. Program costing frameworks, practices and methods
  C. Budget and forward year cost estimates practices
  D. Systemic enablers and inhibitors.
- Each section contains a structured set of questions. Please answer all questions. Where you consider a question is not relevant to your jurisdiction simply provide a brief explanation why.
- You may use the presentation format of your choice, e.g. Microsoft Word or Excel.
- There are no limits on the length of answers. You are encouraged to provide examples and/or attach extracts from relevant policy or procedural documents to help explain your answers.
- Please direct any questions and completed questionnaires to the World Bank (rbarroso@worldbank.org) by 30 April 2013.
Section A. Institutional arrangements and procedures

This section is about the key organizational arrangements and processes in place to support the medium term expenditure framework (MTEF) in your jurisdiction. It provides important context for the detailed questions about practices that follow. The answers in this section should focus on current arrangements, although planned or in-progress reforms may be cited as well.

A1. What are the legal and policy instruments enabling the MTEF?

A2. What is the MTEF process and calendar? Is the MTEF integrated with the annual budget cycle? If so, how?

A3. Who are the main institutional actors who take part in MTEF preparation? What are their main roles and tasks during the MTEF process and connected annual budget processes?

A4. What is the time frame covered by the MTEF? Are the forward year projections cost estimates, indicative allocations or a budget plan?

A5. Are there forward year projections on a ‘no policy change’ basis? How is this defined?

A6. Are the forward years of the MTEF reported on the basis of sectors, agencies or programs? Why or why not? Do these expenditure categories align with those used in budget appropriations?

A7. Are expenditure estimates and/or baselines determined centrally by the central budget agency or by spending agencies? How often are multi-year projections updated each year?

A8. Do the MTEF and annual budget process distinguish existing and new programs? How are these defined?
Section B. Program costing frameworks, practices and methods

This section is about the frameworks, practices and methods for program specification and costing in your jurisdiction. It asks about the content of costing guidance, including its role in standardizing costing methodologies, and the way it is used in the budget process. The answers in this section should provide an overview of current arrangements only.

B1. What is the purpose of costing information? Is it used for budget forecasts only or analytical purposes such as to inform reviews on public expenditure efficiency?

B2. Does the central budget agency issue guidelines on program structure? Are these mandatory?

B3. What is the nature of the program structure used for preparing and presenting the budget? How is a program defined?

B4. Does the central budget agency issue directions or guidelines on program specification methodologies? Are they mandatory?

B5. Does the central budget agency issue guidelines on program costing? Are these mandatory?

B6. How do program costing guidelines relate to planning requirements for the annual budget process?

B7. Do program costing guidelines cover key costing concepts and their application in the public sector, such as cost types (employee vs other operating), cost objects as the basis for costing systems (responsibility centres, programs or projects) and cost drivers (factors causing costs to be incurred)?

B8. Do program costing guidelines stipulate the use of specific costing methodologies, such as standard costing (based on standardised unit budgets) or activity based costing (based on linking cost and activity drivers for programs)? Which methodologies? Why were they selected?

B9. How do program costing guidelines treat indirect (common pool) or fixed (such as capital) costs? What is the ‘basis for allocation’, e.g. simplistic ‘rule-of-thumb’ formula or activity-based costing? Do program structures provide for separate ‘support services programs’?

B10. Do program costing guidelines apply to all programs, or more narrowly to ‘new’ programs considered in the budget process?

B11. How is cost information maintained, e.g. revising cost estimates produced by line ministries, comparing common costs or cost inputs across line ministries, reconciling forecast and actual costs?

B12. Is accrual accounting used as the basis for budgeting? If so, in what ways do costing guidelines interact with accruals?
Section C. Budget and forward year cost estimates practices

This section is about the practices used to prepare program cost estimates for use in the MTEF Budget process in your jurisdiction. It asks about the specific costing and/or forecasting methodologies used in the preparation of proposals over the budget and forward years. The answers in this section should provide an overview of current arrangements only.

C1. What is the mechanism by which the MTEF affects decisions in the budget process, e.g. is the first forward year rolled over automatically to be the starting point for next year’s annual budget?

C2. What directions or guidelines does the central budget agency issue for the preparation of program costings for budget proposals? Are budget proposals prepared on a program, sectoral or expenditure category basis?

C3. What categories of costing information are required for budget proposals? Is there allowance for cost contingencies?

C4. Do guidelines for budget proposals distinguish between recurrent and capital purposes? Are capital proposals required to estimate the recurrent costs of capital expenditure over the budget and forward years? How are these estimates of future running costs incorporated into the costing and wider MTEF processes?

C5. Do guidelines for budget proposals provide separate treatment for ‘special’ programs, such as entitlement programs?

C6. Does the central budget agency issue specific guidelines or directions relating to the application of methodologies for estimating the cost of programs over the forward years? Are these forecasting methodologies applied by the central budget agency, spending agencies, or both? Are they applied generally or selectively? Do they apply consistently across the Budget and forward years, and if not why?

C7. What are the key components of the forecasting methodologies, for instance, standardised economic parameters (e.g. macroeconomic assumptions), estimates construction rules (e.g. ‘no policy change’ basis) and costing assumptions (e.g. escalation factors such as labour and non-labour deflators, demographic and/or behavioural assumptions etc). Are these consistent across the budget and forward years, and if not why? At what level of aggregation do these apply across the forward years, i.e. program or sectoral?

C8. Do the forecasting methodologies differentiate between ‘policy’ changes (new policy or significant change to existing policy) and ‘parameter’ changes (variations to an economic parameter or agency operating environment) impacting the forward estimates of expenditure? How are these defined? How do they relate to demand and cost variations for programs?
Section D. Systemic enablers and inhibitors

This section is about the types of system changes required to enable implementation of costing practices and their integration with the MTEF in your jurisdiction. These system changes can include hard factors (such as structural, procedural and informational reforms) and/or soft factors (such as leadership, cultural and capability reforms). The answers in this section should focus on the strengths and weaknesses of reform strategies supporting current arrangements.

D1. Was the implementation of cost practice improvements part of wider public financial management (PFM) reforms? If so, at what stage of reform sequencing were they implemented, e.g. early stages (e.g. core PFM functionality) or later stages (e.g. extend PFM capability to support MTEF and a performance focus)? Why was this the case?

D2. What types of ‘hard factor’ reforms were considered critical to successful implementation, e.g. integrated financial management systems, specialist cost systems, performance management systems, audit systems, policy and guideline development etc? Please describe the most important characteristics of each of the reforms relevant to your jurisdiction.

D3. Were hard factor reforms implemented centrally and led by the central budget agency? Please describe the most important characteristics of the implementation strategies used.

D4. What aspects of hard factor reforms did not work well, e.g. complexity, functionality, cost of implementation etc?

D5. What types of ‘soft factor’ reforms were considered critical to successful implementation, e.g. training and capability development, leadership and cultural change, recruitment strategies for specialised skills etc? Please describe the most important characteristics of each of the reforms relevant to your jurisdiction.

D6. Were soft factor reforms implemented centrally and led by the central budget agency? Please describe the most important characteristics of the implementation strategies used.

D7. What aspects of soft factor reforms did not work well, e.g. lack of in-house skills, inadequate leadership (political or bureaucratic), cultural barriers etc?
Research Report on
Brazilian Subnational Governments’ Experiences with Public Sector Costing

December 2014

Rafael Barroso
Economist, The World Bank

Dr. Michael Di Francesco
Senior Lecturer in Public Sector Management

The Australia and New Zealand School of Government (ANZSOG) and The University of Melbourne

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<tr>
<th>ACRONYMS</th>
<th>Meanings</th>
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<tbody>
<tr>
<td>ABC</td>
<td>Activity Based Costing</td>
</tr>
<tr>
<td>BI</td>
<td>Business Intelligence</td>
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<tr>
<td>CAF</td>
<td>Financial Administration Coordination</td>
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<tr>
<td>CAGE</td>
<td>Accounting and Comptroller General’s Office of the State of Rio Grande do Sul</td>
</tr>
<tr>
<td>CFC</td>
<td>Federal Board of Accountancy</td>
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<tr>
<td>CWG</td>
<td>Costing Working Group</td>
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<tr>
<td>CUSTOS/RS</td>
<td>Cost Information System of the State of Rio Grande do Sul</td>
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<tr>
<td>DCC</td>
<td>Costs and Special Controls Division of CAGE</td>
</tr>
<tr>
<td>DW</td>
<td>Data Warehouse</td>
</tr>
<tr>
<td>E-FISCO</td>
<td>Corporate System of the State of Pernambuco</td>
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<td>EHCC</td>
<td>Hierarchical Structure of Cost Centers</td>
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<td>FASAB</td>
<td>Federal Accounting Advisory Board</td>
</tr>
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<td>FIPE</td>
<td>Economic Research Institute Foundation of the University of São Paulo</td>
</tr>
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<td>FPE/RS</td>
<td>Government Financial Management Information System of the State of Rio Grande do Sul</td>
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<td>FRL</td>
<td>Fiscal Responsibility Law</td>
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<tr>
<td>Fundação</td>
<td>Center for Social and Educational</td>
</tr>
<tr>
<td>CASA</td>
<td>Services for Adolescents</td>
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<tr>
<td>GFMIS</td>
<td>Government Financial Management Information System</td>
</tr>
<tr>
<td>GoRS</td>
<td>Government of the State of Rio Grande do Sul</td>
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<tr>
<td>GPF</td>
<td>Governance Partnership Facility</td>
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<td>GSC</td>
<td>Sectorial Cost Group</td>
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<td>HR</td>
<td>Human Resources</td>
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<tr>
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<tr>
<td>IFAC</td>
<td>International Federation of Accountants</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>IPSAS</td>
<td>International Public Sector Accounting Standards</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>MTEF</td>
<td>Medium Term Expenditure Framework</td>
</tr>
<tr>
<td>NBCT-SP</td>
<td>Brazilian Public Sector Accounting Standard</td>
</tr>
<tr>
<td>OLAP</td>
<td>On-Line Analytical Processing</td>
</tr>
<tr>
<td>PE</td>
<td>State of Pernambuco</td>
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<tr>
<td>PE Integrado</td>
<td>Integrated System for Procurement, Contracts, Assets and Stock Management of the State of Pernambuco</td>
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<tr>
<td>PFM</td>
<td>Public Financial Management</td>
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<td>Code</td>
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<td>RS</td>
<td>State of Rio Grande do Sul</td>
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<tr>
<td>SAD-RH</td>
<td>Payroll System of the State of Pernambuco</td>
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<tr>
<td>SAP/SP</td>
<td>State Penitentiary Administration Secretariat of São Paulo State</td>
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<tr>
<td>SCSP/SP</td>
<td>Public Service Costing System of the State of São Paulo</td>
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<tr>
<td>SEE/SP</td>
<td>State Secretariat of Education of São Paulo State</td>
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<tr>
<td>SEFAZ/PE</td>
<td>State Secretariat of Finance of Pernambuco State</td>
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<td>SEFAZ/SP</td>
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<td>SEPLAG/RS</td>
<td>State Secretariat of Planning and Management of Rio Grande do Sul State</td>
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<tr>
<td>SES/PE</td>
<td>State Health Secretariat of Pernambuco State</td>
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<td>SES/SP</td>
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<td>SIC/PE</td>
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<td>SIGEO</td>
<td>Budget Execution Managerial Information System</td>
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<td>National Treasury Secretariat</td>
</tr>
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<td>UFRGS</td>
<td>Federal University of Rio Grande do Sul State</td>
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<td>UML</td>
<td>Universal Modelling Language</td>
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1. Introduction

A public administration cost information system is not only a legal requirement of the Brazilian Fiscal Responsibility Law (FRL) and for modernizing public accounting standards, but is also a tool for addressing the manifold needs of managers, legislators, control bodies and citizens. The FRL, introduced nationwide in 2000, mandates all Public Administration bodies to have a costing system for assessing and monitoring accrual, financial and budgetary management information. This legal requirement served to reinforce the directives of previous regulations such as Law 4.320/64, Decree-Law 200/67 and Law 10.180/01. In addition, the decision to modernize Brazilian Public Sector Accounting Standards, bringing them more into line with international standards, also boosted the introduction of costing systems in the public sector. In fact, together with the new Public Sector Accounting Standards, the Federal Accountancy Board (CFC) issued a norm (NBC T 16.11) which instituted the standards for cost information systems in public sector agencies and mandated the adoption of these systems.

Although the technical framework for a cost information system has been established, user demand and the information produced by such systems can vary significantly, e.g. from more accurate budget preparation, measuring the efficiency and the effectiveness of public spending, supporting decisions related to the production of a specific good, service or activity, comparing the costs of products or services between different units to justifying fees collected and public prices. Moreover, cost information is essential for supporting government decisions related to technical and allocative efficiency.

In this context, the Governance Partnership Facility (GPF) Trust Fund provided a grant through the World Bank to support government efforts to establish and improve costing initiatives in Brazil and Indonesia, as well as to disseminate knowledge and promote the exchange of costing experiences. The grant has financed initial research on costing practices within Medium Term Expenditure Frameworks (MTEF) in developed countries as well as dissemination of this research and the exchange of experiences between subnational governments in Brazil.

This report details the experiences of three selected subnational governments in Brazil: São Paulo (SP), Rio Grande do Sul (RS) and Pernambuco (PE) that were presented at a workshop held in Rio de Janeiro on July 21 and 22, 2014. The aim was to disseminate the survey on costing approaches in developed countries and exchange experiences in this area aimed at helping the State Government of Rio de Janeiro to define its costing strategy. On the first day, the participants addressed the following: objectives, methodology, implementation strategy, timelines, technology, intra-governmental coordination, use of cost information and early lessons. On the second day, a structured discussion took place between the speakers and the seminar participants based on a questionnaire prepared by the World Bank.

This report assembles case study examples of cost information practices in the three selected subnational governments. The main objective is to present comparative information

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21 Article 50, paragraph 3.
on practices adopted by these jurisdictions. The report is more than a conventional account of conference proceedings: it is based both on participants’ presentations and on the post-presentation structured discussions. Furthermore, it incorporates key background material provided by the states. Although the presentation outline and questionnaire were identical for the three states, the case studies here nevertheless differ in terms of depth and detail, reflecting the developmental stage of each jurisdiction, as well as the available amount of documentary material on the cost information system possessed by each State Government available for sharing.

The main finding of this report highlights the need to be clear in advance of who the users of the cost information at the Government agency are, and what kind of information they need. The answers to these questions involve two key methodological decisions: the definition of the cost object and the stewardship and degree of involvement of other government agencies in this task. The case studies for each of the three states are presented in Chapters 2-4, while other important lessons learned from the implementation strategy and approach, technology needs and methodology are presented in Chapter 5.

Before embarking on the case studies, certain concepts and methodological choices must be clarified. For example, the information produced by a cost information system is not the same as the information produced by the budget system or GFMIS (Government Financial Management Information System). The GFMIS records the stages of public expenditure, while cost information systems focus on recording the moment that inputs enter the production system. The GFMIS records only cash transactions, while cost information systems also incorporate non-cash transactions such as assets depreciation. It is important to note that cost information is always associated with a cost object.

Another important analytical distinction made in this report is between cost accounting and cost information systems. The first refers to the accountancy principles and rules that underpin the generation of cost information, and the second refers to how these principles are translated into cost information - implying choices of methodologies and cost objects, the design of cost reports, the definition of information needs and target audience - that is useful and integrated with the government’s public financial and general management practices.

Finally, a glossary of cost accountancy terms and the specific usage of them in this report is annexed. It contains definitions of the concepts used here as well as those employed by the Brazilian Federal Accountancy Board, the International Federation of Accountants (IFAC) and the Federal Accountancy Advisory Board (FASAB). It is hoped that the glossary also provides possible justification for the use of definitions that deviate from one of the abovementioned sources.
2. São Paulo

2.1. Introduction

The São Paulo public costing project was born out of the Strategic Plan of the Secretariat of Finance (SEFAZ/SP) instituted in 2007. One of the Plan’s objectives was to improve the quality of public expenditure. The activities supporting this objective initially focused on controlling expenditure items such as utility bills in order to increase the fiscal space for investment. After a couple of years, it became clear to SEFAZ-SP staff that more structural improvements in terms of expenditure, together with the application of more advanced methodologies, such as spending reviews and performance-informed budgeting, depended on calculating the cost of budget programs.

The SEFAZ/SP team researched examples of established costing systems used in other Brazilian states and more developed countries, but were unable to identify experiences that suited the needs of São Paulo State, and that could be replicated. In the light of previous successful collaboration, the team requested technical assistance from the IMF (International Monetary Fund) and FIPE (Economic Research Institute Foundation of the University of São Paulo). Such support was indispensable for defining the costing system methodology and training the staff responsible for financial and budgetary issues.

The general approach involved costing State public services such as the socialization of juvenile offenders and the provision of vocational training for adolescent students. The budget programs and subprograms were the natural candidates for cost objects. The budget programs however suffered from problems ranging from poor program definition, partial attribution of expenditures and the large number of programs, to cultural issues in budget preparation such as preparing and managing the budget by appropriation item. It was clear that the definition and structure of the budget programs needed overhauling in parallel with the development of the cost information system. This was to be the essential first step towards a more advanced performance-informed budget structure, identifying the relevant public services and associating them with the objects of the cost information system.

The project commenced in 2010, but made slow progress in 2011 and 2012 due the change of Government (a new Governor took office in 2011) and coordination problems between SEFAZ/SP, the Planning Secretariat (SPDR/SP22) and the Public Management Secretariat (SGP/SP).

This chapter describes the current experience of São Paulo State with the implementation of its public costing system. It contains five sections in addition to this introduction; the institutional context in which the project was implemented; the methodological approach; the implementation strategy; IT features; and, finally, a summary of the lessons learned.

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22 In 2011, the official name of the Planning Secretariat and thus its acronym was changed from the Secretariat of Economics and Planning (SEP) to the Secretariat of Planning and Regional Development (SPDR/SP).
2.2. Institutional Context

The Public Service Costing System of the State of São Paulo (SCSP/SP - *Sistema de Custos dos Serviços Públicos do Estado de São Paulo*) was under the overall direction of the Secretariat of Finance, but depended heavily on inputs from SPDR/SP and SGP/SP given that it involved a major revision of the way the state defined its budget programs and its need to adopt new approaches to public management oversight and improvement. Two committees consisting of SEFAZ/SP, SPDR/SP and SGP/SP representatives were formally established by government decree. The first was tasked with overseeing the implementation of the SCSP/SP, and the other with overseeing the implementation of results-based budgeting in the state. Both were responsible for defining the strategies and objectives, monitoring the implementation of the system, and harnessing political support. Despite the existence of these committees, SGP/SP involvement was very modest and the SPDR/SP began to participate more actively only in recent years once the performance-informed budget reforms got underway.

The modus operandi of the SCSP/SP included the appointment of a small group of staff members from the Financial Administration Coordination (CAF - *Coordenadoria da Administração Financeira*) to work exclusively on the project. The IMF nominated a resident advisor to work together with this group during the first two years of the project. It also provided backstopping assistance and was responsible for recruiting senior professionals to ensure the theoretical soundness of the costing and budget program model. FIPE’s job was to work with the CAF team on a daily basis and liaise with the external technical experts, promoting the continuous improvement of working methods based on the experiences in the pilot projects. The model was thus highly coordination-intensive. A secondary objective was to ensure that FIPE would be in a position to acquire knowledge on cost information systems that could later be disseminated to the rest of the country. In SEFAZ/SP the project was managed initially by the Secretary’s Office and later by the CAF (not by the Accountancy Division, as in the other two states).

Besides complying with legal requirements, the SCSP/SP was envisaged primarily as a management tool, with the following stated objectives. To:

- Provide managerial information in support of decision making;
- Provide line managers with information enabling them to improve the management of their units;
- Allow cost comparisons between similar service delivery units;
- Provide supporting data for formulating the Multi-annual Plan and Budget and Sectorial Strategies, aimed at ensuring more precise and realistic expenditure estimates;
- Provide to the general public clear and transparent information on the cost of each service provided.

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23 The level of participation by the two Secretariats varied throughout the process. SGP/SP participated less than SPDR/SP. Both were less active than initially expected.
Although the SCSP/SP caters to the needs of many agents (e.g. civil society, the Governor of São Paulo, the Legislative Assembly, the State Court of Accounts, and other State Secretariats), the main target audience is the senior management of each government agency and line managers from government units (hospital directors, school principals, etc).

Finally, since the SCSP/SP is still at the experimental stage, there is no lower level legal requirement in São Paulo State to determining its mandatory use as the only source of cost information.

2.3. Methodology

Since no established methodology for cost information systems could be found in the technical literature or one that had been implemented in other countries (or Brazilian states), the first years of the project were dedicated to researching the theoretical and practical underpinnings of the cost information system. Several technical notes were produced and workshops held at this stage. A conceptual costing model was eventually developed, agreed and applied on a pilot basis in four government agencies: *Fundação CASA*, the State Education Secretariat (SEE/SP), the State Health Secretariat (SES/SP) and the State Penitentiary Administration Secretariat (SAP/SP), leading to the production of a working paper on each exercise. The results were then submitted to, and discussed with, the government agencies. SEFAZ/SP subsequently produced the first version of the costing manual, indicating the methodology to be adopted. This research stage was instrumental in harmonizing and disseminating knowledge within the project team to ensure smoother implementation during the subsequent stages.

In its search for the most suitable costing model, the state decided to adopt the Catelli economic management framework based on the so-called “5P approach” - essentially a list of five key variables (all starting with the letter P):

- Purpose or objective – for whom is this information useful, and for what purpose?
- Policies and directives – which concepts and technologies to use, and which are the user groups?
- Products – what information should be collected and disseminated, and how regularly?
- Processes and systems – which systems, processes, methods and routines to adopt?
- Producers – who to involve and train and which resources are needed?

This approach should be regarded as a tool to help the state take appropriate steps to develop and implement the system. The five “Ps” were interpreted in São Paulo’s case as follows:

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24 Please refer to the analytical distinction made between cost accountancy and cost information systems.
25 Government agency responsible for juvenile correctional and re-socialization facilities.
26 Dr. Catelli was a FEA-USP professor who advised Prof. Guerreiro’s PhD Dissertation on the costing of products and services. Dr. Guerreiro is a member of the SEFAZ/FIPE cost information system team.
27 The 5P approach is a strategic management model that uses five key variables to improve an organization and its operations. See Pryor et al. (1994) and Ford et al. (2008).
The purpose of the costing system is to provide support to government decision making and cost control.

Policies consist of all the rules established on cost center identification, cost classification and assignment, and costing methods. These policies serve to produce the identification, accumulation and measurement models of the SCSP/SP.

The product is the cost information per se, as well as the format, periodicity and availability of the information.

The processes refer to how the costing system interacts with the government agencies’ routines and work processes. The processes also involve mapping business processes, a survey of existing IT systems and of the data produced and the adoption of the new culture by government agency staff.

The producers are the employees responsible for entering data into all the systems that feed into the SCSP/SP, and for producing the cost reports. This variable also covers the desired or required level of centralization and decentralization of the production and use of the cost reports.

The first decision made after the research phase was to entrust SCSP/SP with calculating the cost of the public service at the cost center level (school, hospital, correctional facility), using a standardized method for the entire state, retrieving essential data from the existing centralized and corporate systems from line agencies.

In practice, the SCSP/SP model consists of four models: Identification and Accumulation, Measurement, Decision and Information and Processing, as shown in

FIGURE 1.

The Identification and Accumulation Model entails the identification and structuring of the cost objects – public services families, programs, cost centers, etc – based on the structure and main function of each government agency. It is a representative model of the organizational and operational reality of the particular agency and is represented by a service matrix that is by definition specific to each agency.

These matrices detail the cost objects on four levels, with the fourth level being the cut-off point for the SCSP/SP. Beyond the fourth level, the government agencies can drill down if necessary. The resources consumed are appropriated at the lowest level (Level 4), which is the most disaggregated one. From this level, the information can be aggregated in order to obtain the cost figure for more aggregate cost objects or higher organizational levels. The intermediate organizational levels (Levels 2 and 3) represent clusters of similar units, which also serve as comparators in benchmark exercises. Figure 2 and 3 show the services matrices constructed for SAP/SP and SES/SP.
FIGURE 1 – CONCEPTUAL FRAMEWORK OF THE SCSP/SP

FIGURE 2: IDENTIFICATION AND ACCUMULATION MODEL - SERVICE MATRIX FROM SAP/SP

<table>
<thead>
<tr>
<th>Cost Objects</th>
<th>Services</th>
<th>Details: services, programs, projects, covenants, functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 0</td>
<td>Level 1</td>
<td>Level 2</td>
</tr>
<tr>
<td>State Penitentiary Administration Secretariat</td>
<td>Prison Units</td>
<td>Provisional Detention Centers</td>
</tr>
<tr>
<td></td>
<td>Penitentiaries</td>
<td>Male Penitentiary</td>
</tr>
</tbody>
</table>

Source: SEFAZ/SP
<table>
<thead>
<tr>
<th>Level 0</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full Health Care</td>
<td>Specialty Care</td>
<td>Hospital Care</td>
<td></td>
<td>Inpatient Care</td>
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<td></td>
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<td>Ambulatory Care</td>
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<td>Emergency Care</td>
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<td>Outpatient Surgery</td>
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<td></td>
<td>Diagnostic and Therapeutic Care</td>
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<td></td>
<td></td>
<td>Medical Care</td>
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<td></td>
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<td>Surgical Care</td>
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<td></td>
<td></td>
<td>Non-medical Care (psychologists, nurses, etc.)</td>
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<td></td>
<td>Dental Care</td>
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<td></td>
<td></td>
<td>Diagnostic and Therapeutic Care</td>
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<td></td>
<td>Pharmaceutical assistance</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>Decentralized health care</td>
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<tr>
<td></td>
<td>Health Surveillance</td>
<td></td>
<td>Sanitary and Environmental Surveillance</td>
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<td></td>
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<td></td>
<td>Epidemiological Surveillance</td>
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<td></td>
<td>Public Health Laboratories</td>
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<td></td>
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<td></td>
<td>Vector Control</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Production of Immunobiologics, blood products and drugs</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Science, Technology and Innovations in Health</td>
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<td></td>
<td></td>
<td></td>
<td>Health Education</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Medical Care with blood, components and derivatives</td>
<td>Homeotherapeutic Care (Direct Administration)</td>
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<td></td>
<td></td>
<td>Homeotherapeutic Care (Contracts and Agreements)</td>
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<td></td>
<td></td>
<td>Homeotherapeutic Care (Abroad)</td>
<td></td>
</tr>
</tbody>
</table>

Source: SEFAZ/SP

**FIGURE 3: IDENTIFICATION AND ACCUMULATION MODEL - SERVICE MATRIX FROM SES/SP**

Detailing: services, programs, projects, covenants, functions
The Measurement Model establishes the criteria and methods for assigning costs to the cost objects including cost centers. It identifies the moment that the resources are consumed, assesses their monetary value and links this information to a specific cost object.

The direct tracing cost assignment method is used. Cost proration is avoided by employing three alternative methods: (i) when the public service is a budget functional classification the cost information already exists in the GFMIS; (ii) to use the data inputted in the NL CC\textsuperscript{28} transaction created in the SIAFEM/SP (Sistema Integrado de Administração Financeira de Estados e Municípios – São Paulo). This involves the designated official recording the cost center and cost object to which this transaction has been directed during the budget execution. This is required when a cost resource is used by more than one cost center; and (iii) finally, to distribute the costs directly according to previously specified parameters used in other systems or Government documents e.g. government procurement documents. This data is inputted in SCSP/SP and processed automatically.

Other features of the Measurement Model include: compliance with international accounting standards, adherence to local legal standards such as stocks evaluation and asset depreciation time profiles, and the use of budget-adjusted data to generate accrual information. The decision to use budget information instead of accrual accounting information arose because the state had not implemented accrual accounting when the costing information system started. It is expected that as the state continues to implement accrual accounting, this will serve as the cost information system’s source of information. It can be seen from this that the cost information system does not need to have accrual accounting or budgeting in place. Furthermore, the Measurement Model generates information on how to measure specific cost items such as personnel and assets.

FIGURE 4 shows all the steps needed in the Measurement Model before reaching the next stage - the Decision and Information Model.

The Decision and Information Model of the SCSP/SP focuses on how cost information is translated into summary reports and fed into the state’s decision making process. The component concerns the format and content (but not the style) of the reports and

\textsuperscript{28} NL CC = \textit{nota de lançamento de centro de custos} (cost center attribution transaction).
aims to ensure that the relevant information is tailored and conveyed to each decision maker in the clearest way possible. Depending on user needs, these reports can provide detailed cost information on services, cost centers and other cost objects, as well as on cost resources: personnel, public utilities, outsourced services, and employer contributions.

Finally, the SCSP/SP Processing Model, described later in the technology section, is concerned with all the IT architecture supporting the SCSP/SP.
In accountancy terms\textsuperscript{29}, the methodological model developed by the State of São Paulo can be described as consisting primarily of the process based accumulation method, the actual cost measurement model and the direct tracing cost assignment method. In other words there is no proration of costs. The costs are assigned to the service to which it primarily contributes. In order to do this, the system obtains information from government-wide systems, from line agencies’ internal systems, and even from the terms of reference of contracted services such as office cleaning and security.

Despite the managerial appeal of the Activity Based Costing (ABC) approach, São Paulo State decided not to use this due to its complexity, the lack of expertise and in-house culture and knowledge. This however does not preclude any government agency from experimenting with ABC in complementation to the SCSP/SP. While customization of the system to meet the specific needs of any agency is not foreseen at this stage, government agencies such as the Health Secretariat that need more detailed cost information are nevertheless not precluded from using cost information solutions provided by private firms.

Regarding the structure of cost centers, the State of São Paulo did not possess an established cost center structure before starting to develop its cost information system. The closest thing it had to a cost center classification was a cadaster of all its administrative units \textit{(Cadastro de UAs)}, used mainly for administrative and organizational purposes. This cadaster needed to be enhanced with more information about the administrative units and also include the information on decentralized government agencies such as foundations and State-owned companies. The state decided however not to restructure and update the cadaster state-wide prior to commencing development of the costing system. Rather, it embarked on a less ambitious and more pragmatic approach, revising the cadaster in each piloted government agency together with defining the public services (costing objects) to be costed. In fact, revising the cadaster and creating the service matrix of each government agency is the first step towards introducing the cost information system, allowing the cost center structure to be adapted to the needs of each government agency. For example, at SAP/SP the cost center is the correctional unit, which is also the budget executing unit, while at the SEE/SP the schools are the cost centers and the budget executing units are at the regional director level.

The system aims to ensure comparability of cost information between all government agencies. There was no need to develop a specific costing chart of accounts as in Pernambuco. Regarding periodicity, cost reports are scheduled to be produced every four months. Another important characteristic of the system worth noting is that it uses current expenditure data to calculate costs.

\subsection*{2.4. Implementation Strategy}

The implementation strategy is characterized by its gradual approach, with the system being implemented in a few Secretariats at a time. It is worth noting that the methodology was developed and implemented without using an IT system. The IT system started to be

\textsuperscript{29} See the glossary at the end of this report for an explanation of the accounting terms employed.
developed only after the methodology had been tested in four different Secretariats for over a year and after reports had been produced and results scrutinized.

The pilot units were selected on the basis of several criteria, the most important being the essential nature of the service provided and the existence of staff performance payment schemes. Other factors also played a role such as a long-standing need to calculate costs as in the case of Fundação CASA\(^{30}\), or the advantages of the organizational structure, as at SAP/SP, where the cost centers were already budgetary units.

Development of the system required good coordination between IMF and FIPE and the involvement of PRODESP (Data Processing Company of the State of São Paulo), responsible for developing the software. Other agencies involved included the government agencies (mentioned above) that were used for experimental purposes prior to system deployment.

The State Secretariats selected for the pilot project adopted a step by step approach. SEFAZ/SP first focused on obtaining the support of the senior management of the four agencies. Subsequently, their coordinators and technical staff became involved in the project. The key points used to convince line managers to cooperate and participate in the SCSP/SP initiative included the legal requirement to do so, the opportunity to participate in an innovative project, and acknowledgment of the SCSP/SP’s potential as a powerful tool to support decision making.

Experience has also revealed that substantial pre-operational work to develop and implement the costing system in the government agencies is needed as well as assisted operation by costing champions from SEFAZ/SP.

A project management methodology aimed at generating a monitoring and evaluation routine among staff proved to be crucial for keeping the project running and avoiding significant cost and time overruns.

2.5. Technology

The SCSP/SP is an analytical system that uses the same DW (Data Warehouse) system with OLAP (On-Line Analytical Processing) servers as the SIGEO. This system extracts data from the State GFMIS, for analytical purposes and enables reports to be customized.

However the SCSP/SP required three changes to be made in the state’s corporate transactional systems. The most important was the creation of the “NL CC” transaction at the SIAFEM/SP, which serves to distribute the costs among cost centers in cases where budget execution is not recorded directly at the cost center level - a situation arising for example at the Education Secretariat. The other changes involved the systems used specifically by SAP/SP and SES/SP. It is worth noting that the development and implementation of the

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\(^{30}\) The Court of Accounts required Fundação CASA to implement a costing system because the simple division of its total budget by the number of people served showed that average expenditure per “client” exceeded that of the Education Secretariat.
SCSP/SP highlighted opportunities for improving existing IT systems and business procedures by the implementing agencies, as well as for drawing their attention to the need to develop new administrative systems.

The SCSP/SP Processing Model focuses on the interaction between the SCSP/SP and the corporate and structural transactional systems of the state, and on the logical procedures used to retrieve data from these systems, to transform them into cost information (in accordance with the methodology developed in the first two models) and to make this information available through cost reports as per the Information and Decision Model.

The SCSP/SP IT system was designed to retrieve information from the state’s existing corporate and structural transactional systems, as well as from other systems specific to each government agency. This was done to avoid systems overlap and double data entry. To implement the state’s programmatic approach to costs it was essential to obtain highly detailed data, e.g. information on the number of hours worked by each teacher and the level of education taught (primary, secondary and/or tertiary) was obtained from the Education Secretariat’s payroll system.

Development of the IT system entails using, wherever possible, standard industry procedures such as the Universal Modelling Language (UML) and the Oracle Business Intelligence application, both already familiar to government officials. The system is being developed by the State-owned IT Company PRODESP and its first version is scheduled for launching in January 2015. The piloted agencies will thereafter be able to generate cost information reports on a routine basis prior to the system being rolled out to other government agencies.

**BOX 1 – ACTUAL COST INFORMATION REPORTS FROM SÃO PAULO**

Since the São Paulo cost information system is already operational (on a pilot basis and involving only selected agencies), this Box provides an example of the cost information available and the exercises generated by the system.

Figure 5 shows the actual cost per prisoner in nominal Brazilian Reais for the month of March, 2014 in five prisons. All these facilities only hold provisional prisoners, i.e. those that have not been definitively sentenced. The facilities are not named because the data is not yet in the public domain. The figures however reflect actual costs and publication was authorized by SEFAZ/SP.

Several conclusions with clear policy implications can be drawn. Firstly, costs differ by over 20 percent between the lowest and the highest. Secondly, the data shows that the prisons relying most heavily on outsourced services are not necessarily the ones with the lowest cost. An important caveat: some facilities in São Paulo are operating above their nominal capacity and some adjustment for this excess capacity is therefore required.

**Figure 5 – Cost per Prisoner (Brazilian Real – March/2014)**
2.6. Successful Experiences and Reported Problems

The main problems observed relate to coordination issues, staff turnover and support by senior government officials. The approach chosen by the State of São Paulo, combining a revision of budget programs and cost center structures as the first step of the process, can be invaluable for incorporating cost information for budgeting and evaluation purposes. However, this approach requires close coordination and alignment between SEFAZ/SP and SPDR/SP, tasked with the cost information system and the budget respectively. Unfortunately, coordination and alignment between the two Secretariats fluctuated during project execution, and implementation was slower than initially expected. As a result, SEFAZ/SP decided to move ahead of SPDR/SP by devising the service matrix and cost center structure with the line agencies. This initiative was later revised and incorporated into the budget by SPDR/SP\(^{31}\).

A further problem was the internal coordination of the core team, consisting of staff from SEFAZ/SP, IMF, and FIPE, tasked with implementing the SCSP/SP. Furthermore, the SCSP/SP was financed by an Inter-American Development Bank (IADB) loan, which involved a separate line of reporting and accountability. The lack of clear roles and responsibilities and the separate lines of accountability made the project implementation pace faltered at the beginning.

Another problem faced by SEFAZ/SP in developing the cost information system was the high staff turnover rate. The SEFAZ project team was composed mainly of officials known as Public Finance and Budget Analysts (a newly created career category). Initially, this appeared to be an advantage since these new officials were well-motivated and, importantly, possessed accountancy and cost information expertise derived from their private sector experience. However, the unattractiveness of the career in comparison to the private sector and (predominantly) to other public service careers, resulted in a high turnover rate.

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\(^{31}\) SPDR/SP is incorporating the service matrix in the performance-informed budget reform.
This led to constant changes in the project team, some loss of accumulated knowledge and a temporary slowing of the pace of implementation.

A final problem. The project commenced one year before the change in government, which meant that by the time the new Governor of São Paulo and his team took office the SCSP/SP had not matured enough to show some quick wins or show that it had won support from key stakeholders. Considerable time was therefore spent explaining the importance of the SCSP/SP to key senior officials and the need for a joint effort by SEFAZ/SP and SPDR/SP. Some agreement was eventually reached and a measure of support obtained, resulting for example in the issuance of government decrees creating the SCSP/SP and the results-based budgeting implementation groups.

On a more positive note, SEFAZ/SP demonstrated that it was essential to devote time to researching and developing the methodology and conducting SCSP/SP pilot studies. This stage helped to consolidate the theoretical foundations of the model to ensure that it was fit for purpose. Most importantly, it provided an opportunity to enhance the knowledge and expertise of the core team, enabling its members to define the type of information that would be generated by the system and to inform stakeholders of this at an early stage.

A further success reported by SEFAZ-SP was the construction of the system jointly with the line agencies, especially at the service matrix and cost center stage. This joint effort enabled the government agencies to assume ownership of the SCSP/SP and thus allow the SCSP/SP to produce the relevant cost information.

A final lesson learned was the importance of having good, accurate and useful performance information for using alongside cost information. This aspect, frequently overlooked, is important given that cost information per se does not show whether resources are being well spent. In short, cost information alone is not a sufficient basis for elaborating practical policy recommendations to improve allocative and technical efficiency.
3. Rio Grande do Sul

3.1. Introduction

Of the three states surveyed in this report, Rio Grande do Sul was the first to adopt a cost information system. System development began in 2003, led by the Secretariat of Finance (SEFAZ/RS), with external support provided only at the methodological stage. Although the system has matured and is already producing cost reports for most government agencies, the state still has a long way to go in terms of system development and expanding its utilization in the state’s public management processes.

This chapter, reporting the experience of the State of Rio Grande do Sul with the ongoing implementation of its cost information system, consists of six sections (including the introduction). The first substantive section describes the institutional context, while the second focuses on the system methodology. The third section looks at the implementation strategy, and the fourth reviews the IT aspects of the system. The final section reviews the lessons learned during system implementation and utilization.

3.2. Institutional Context

The system was conceived at the outset primarily to comply with federal legislation on public sector costing. The state did not however regard this as its only raison d’être. The legal obligation in reality created an opportunity for developing a tool to advance management practices in the state administration - a goal that the Finance Secretariat’s Accounting and Comptroller General’s Office (CAGE) had over many years sought for and which explains why CAGE took the leading role in its development.

The system was designed to cater to a variety of audiences and purposes, e.g. line managers (to obtain and evaluate the inputs needed for producing the required product), managers of government agencies (to monitor costs and the achievement of targets), policymakers and planning agencies (to determine resource allocations to different government programs), and control agencies (to evaluate the results).

In order to achieve the above, two university professors from the Accountancy Department of the Federal University of Rio Grande do Sul (UFRGS) were hired as consultants to help develop the model’s basic design in 2003 and 2004. The State-owned data processing company PROCERGS subsequently developed the Information Technology (IT) system. In the event not all expenditures and cost objects were initially incorporated in the IT system and some system functionalities are still being implemented.

The State Government’s efforts to improve costing practices and meet the needs of key practitioners eventually led to the introduction in 2012 of CUSTOS/RS (Cost Information System of the State of Rio Grande do Sul). Formally established by Decree 49.766/12, the cost information system is defined as a set of procedures, IT systems and stakeholders for registering, processing, calculating and analyzing the costs of the government’s agencies.
based on the cost attributes of the lowest level consumption units (cost centers, projects and activities). The system aims to:

- calculate the costs of government administrative units and budget programs;
- integrate and support the accounting system;
- guide and instruct decision making processes;
- enable and enhance results assessments of government agencies;
- support planning and budgeting processes; and
- support initiatives for improving expenditure quality.

While Decree 49.766/12 was the main legal instrument for instituting CUSTOS/RS, the system’s legal framework was supplemented by other administrative directives, such as CAGE Normative Instruction No. 1, which contributed to successful implementation.

### 3.3. Methodology

From a purely cost accounting viewpoint, and in accordance with the definitions contained in the glossary at the end of this report, the chosen methodology includes a process costing accumulation method, an actual cost measurement method and a direct tracing cost assignment method. This means that costs are calculated on a continuous basis throughout time; using actual expenditure data recorded in the GFMIS (locally called *Finanças Públicas do Estado – FPE*). Rio Grande do Sul decided that common pool costs would be allocated to the cost center responsible for managing such costs. For example, if one energy meter in a facility serves several cost centers the energy costs are allocated to the cost center responsible for managing and paying for this facility’s energy. No proration was therefore needed to obtain the cost information.

The model chosen involves in practice a multidimensional approach to costs that enables the Rio Grande do Sul Government (GoRS) to simultaneously allocate costs to two types of cost objects: (i) government administrative units, or the hierarchical or vertical dimension; and (ii) government programs and actions, also known as the programmatic/functional or horizontal dimension. Figure 6 illustrates this multidimensional approach.

The vertical dimension is the government’s own hierarchical structure, e.g. the cost of the entire executive branch can be calculated by costing government agencies and departments, or even budgetary units such as schools and hospitals. On the other hand, the horizontal dimension begins with the functional classification of government and subsequently involves calculating the costs of government programs and subprograms.

The cost attributes displayed in Figure 6 are subject to registration and provide some information on costs and cost centers. There are two types of cost attributes: (i): consumption attributes, comprising the quality, temporal, quantitative, and locational features of costs; and (ii) costs center attributes, created to improve the operation of the system such as structure, links, registrations.
A key concept introduced by the costing system that is essential to this multidimensional structure is that of the cost center and the related Hierarchical Structure of Cost Centers (EHCC). The latter is described as a coding administrative and budgetary structure system that identifies agencies and entities and displays its components hierarchically, observing the legal basis, the structure adopted by State Government’s human resources department, and the operational and/or management relevance. The cost center concept is important for a variety of reasons. Firstly, the cost center is the most analytical level of cost accumulation, enabling cost information to be accurately captured at the place and time in which the cost is incurred. Furthermore, given its embedded relational structure, costs can be cascaded upwards both to higher administrative units and budget programs. Secondly, cost centers are a standard and consistent government structure classification that exists in all government IT systems, ensuring adequate connection and the accuracy of the data managed.

The main source of information is the budget, where adjustments were made in order to convert budget information into cost information. Accrual accounting information, regarded as the preferred source, was not available when CUSTO/RS was being developed,
and no tailored information needs from specific government agencies have been identified to date.

Finally, regarding periodicity, the reports are available online through the government’s internal network and can be obtained at any time, customized if required to reporting periods ranging from one month to one year. There is no obligation to issue formal cost reports with pre-defined periodicity, which means that each government agency can issue reports on an ad hoc basis, depending on the requirements of its management team. CAGE recently introduced a requirement to include cost reports in each government agency’s annual report. As from 2015 (referring to Budget Year 2014) every agency that has implemented CUSTOS/RS will be required to produce at least one annual cost report.

3.4. Implementation Strategy

The implementation strategy of the GoRS costing system was guided by six premises: compliance with legal requirements; the introduction of a gradually evolving system; automatic data entry; interoperability with other government IT systems; consistency with accounting records; and results-focusing. These six premises produced four principles to guide the implementation strategy:

- gradual development and implementation;
- intensive use of Information Technology;
- a multi-dimensional cost approach; and
- a user friendly environment for producing and analyzing cost information.

The decision to implement the system gradually rather than adopting a “big bang” approach was necessary because of the high volume of data that needed to be processed from over 60 public agencies linked to the core government’s IT systems. It was decided that: (i) not all government agencies would implement the system simultaneously, and (ii) expenditure data would be incorporated gradually into the costing system. Meanwhile, the vertical cost dimension was to take precedence over horizontal cost dimension in the development and implementation of the system. System implementation was to be carried out in two stages: (i) the development, implementation and generation of cost information by government units (vertical dimension); and (ii) costing information by government programs.

Stage 1 involved firstly allocating the direct costs to cost objects, beginning with key costs such as payroll, followed by less substantial and more complicated costs such as depreciation. The system was first implemented at the Secretariat of Education in December of 2011, while three further agencies were incorporated in 2012 and 10 in 2013. 11 agencies were expected to be incorporated by end-2014. The roll-out of the costing system to government agencies is expected to be fully completed by 2017. Meanwhile, implementation of Stage 2 is expected to start after completion of Stage 1. These timelines were recently extended, with Stage 1 expected to end in 2015 and Stage 2 expected to get underway in 2014.
The third guideline refers to the multi-dimensional aspect of cost, previously explored, which enables the state to simultaneously allocate costs to two different types of cost objects.

The second and fourth implementation guidelines relate to the IT aspects of the costing systems (i.e. the requirement for automatic data inputting and compatibility with other government IT systems). The government envisaged that the success of the system would depend on the amount of intervention or behavioral change demanded of end-users at this stage (e.g. the less, the better). By relying heavily on IT the government ensured consistency between accounting, financial and cost information, possible because the hardware and software solution chosen was compatible with the legacy IT systems. Finally, by allowing end-users to access the costing system for consultation and analytical purposes from any computer connected to the internet (webclient rather server-client), and by offering a graphical interface identical to the one used at the GFMIS, the need for training government staff to operate the system was reduced. Nonetheless, several training sessions have been run by CAGE since the system was introduced.

CAGE led the development and implementation of the cost information system. This central government agency is responsible for issuing accountancy norms, including cost accountancy, for all State Government agencies, including the Judicial and Legislative branches.

Neither the Government nor SEFAZ/RS established a special committee with consultative or oversight functions. The costing system was, and continues to be, implemented by a small group of up to four civil servants at CAGE in the Costs and Special Controls Division (DCC). A Sectorial Costing Group (SCG) was created in each government agency to act as the interlocutor with CAGE and to steer the implementation of the costing system in its respective agency. As such, the structure for implementing the system can be described as an autonomous rather than a multi-disciplinary arrangement that does not require broad political support beyond the Finance Secretariat. On the other hand, this autonomous approach cannot fully guarantee the sustainability of the cost information. In Rio Grande do Sul’s case the approach increased the need for cost information dissemination and the training of staff members who had not participated previously in the development of the system.

SEFAZ/RS was responsible from the outset for modelling, constructing, and managing the costing system. Meanwhile, the Sectorial Costing Groups dealt with operational rather than strategic issues. After a few years of system implementation, the Secretariat of Planning and Management (SEPLAG/RS) and SEFAZ/RS are finally beginning to jointly discuss modalities for feeding cost information into the planning and budgeting process. This was not the case at the design stage.

Coordination of system implementation was based more on a legal, formal and hierarchical approach than on collegiate decisions. The role played by legal norms in the implementation strategy was crucial. Decree 49.766, introduced in 2012, was the main legal instrument for establishing the CUSTOS/RS. This was reinforced by a number of
administrative directives such as CAGE Normative Instruction No. 1, as well as by the 2014 Budget Guidelines Law (Law 14.266/2013).

This formal approach is reflected in how the information is used by CAGE. Since the system was developed without prior scoping of the line agencies’ business requirements, but as an autonomous initiative by a specific government department (CAGE), there was no structured process in place for using the cost information when it became available. The CAGE Costs Division nevertheless reports increasing use of the cost information by units that have had the cost information system for longer. The division also claims that more complex analyses are being fed informally into service delivery processes.

In order to institutionalize this process, CAGE used another Normative Instruction (IN 01/2014) to instruct all government agencies that had used the cost information system for over a year to incorporate cost information reports (including indications of resource savings or productivity gains generated by the information) into their Annual Reports, to be made accessible on Rio Grande do Sul’s Transparency Portal.

3.5. Technology

As in any large government-wide system, IT is crucial to the success of the costing system. The IT architecture reflects the following user requirements:

- compatibility with other existing information systems;
- to accommodate updated information from the systems that can be fed into CUSTOS/RS;
- to display the user environment via the internal network (Rede PROCERGS);
- to follow the FPE navigation structure;
- to be fully adapted to the costing methodology prescribed by CAGE; and
- to ensure maximum flexibility in the adjustment scope so that new user or methodology requirements can be incorporated.

At present the system requirements comprise a computing platform based on the model used by the FPE modules, a Microsoft SQL database, Microsoft ASP language for WEB programming, and some routines in Visual Basic.

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32 This is not to suggest that a Government-wide cooperation effort was possible, but simply to highlight that there were alternatives between these two extreme options that, if explored, could have produced better outcomes.
CUSTOS/RS is a transactional system (Central Modules) that feeds an analytical system (Managerial Module). The system was developed by the State-owned IT company PROCERGS. Rio Grande do Sul is currently the only state of the three examined in this report with an operational cost information system. The system was developed in parallel with the methodology, i.e. cost information was not produced and tested before the system was developed.

During the implementation of the cost information system minor adjustments had to be made to other systems, especially to the Human Resources system (RHE/RS). Meanwhile, other systems developed concurrently were designed to be eventually integrated with CUSTOS/RS.

PROCERGS was responsible for developing and implementing various Central Modules to feed the Management Module, such as the RHE/RS and FPE/RS systems. It is worth mentioning that the payroll system, for example, also underwent minor adjustment.

The cost information system allows users rapid access to standardized reports and key data rather than to detailed cost information. Cost information can also be filtered by jurisdictions, government agencies, municipalities, periods, etc, depending on a manager’s specific interests. In this way the system caters to specific access requirements as well as affording comparability between cost objects and Government agencies.
This Box shows the average cost per prisoner from January to October 2014 in seven selected correctional facilities in the metropolitan region of Porto Alegre in Rio Grande do Sul. These figures are actual costs in nominal terms. The values are displayed in Error! Reference source not found. FIGURE 8 – AVERAGE COST PER PRISONER

Figure 8 clearly shows that the cost per prisoner varies markedly and that more information needs to be included in order to support any analysis. It is important to note that the different types of correctional facilities are displayed. Prisons A and B are small facilities (fewer than 100 inmates) designed for prisoners in the semi-open or open penal regime, while Prisons D to G house inmates in all four different penal regimes, but differ in size and in the proportion of prisoners in each regime. Finally, a high security prison is expected by definition to incur higher costs. The use of the facilities in excess of its nominal capacity should also be taken into account since fixed costs will be more spread in these cases. In short, cost benchmark exercises need to be carefully devised to avoid producing misleading conclusions.

3.6. Successful Experiences and Reported Problems

The task of implementing the costing system was fraught with problems, but it also yielded some positive lessons. Problems included: the lack of a culture of cost analysis (e.g. staff were initially reluctant to adopt the costing system since they wrongly assumed that it would involve more work); the lack of a central information system to enable the costing system to search and combine information from several different sources and systems; the incipient theoretical-conceptual methodological framework; and, finally, inadequate computerized systems that had been previously adopted in the public finance area.

On the other hand, some successful experiences were reported: the CUSTOS/RS system has been implemented in 14 agencies and is currently in operation; the hierarchical Cost Center structure is in place and acknowledged by other systems used in FPE; the system is legally institutionalized; and training and capacity development of groups responsible for
costing practices is underway. Finally, the Court of Auditors now insists on cost analysis reports from public managers.
4. Pernambuco

4.1. Introduction

Of the three states surveyed, Pernambuco is the latecomer. Its information system, known initially as the “Sistema de Gestão de Custos” (Cost Management System) and recently renamed the “Sistema de Informação de Custos – SIC/PE” (Cost Information System), is still being developed and implemented. Given that the state has completed the conceptual design stage, all the information below refers to the conceptual design of the system and early implementation efforts. The data is less comprehensive than in the cases of São Paulo and Rio Grande do Sul given that Pernambuco’s efforts are still at a very early stage.

As a latecomer, Pernambuco benefited from the experience of e.g. Rio Grande do Sul, through field visits and knowledge exchange.

This chapter contains five substantive sections: Section 4.2. addresses the institutional context; Section 4.3. looks at the methodological issues surrounding the SIC/PE; and Section 4.4. describes the implementation strategy. Section 4.5. refers to the technology supporting the system. The final section reviews the provisional lessons learned.

4.2. Institutional Context

The SIC/PE emerged as the result of efforts by the task force (GT Custos) established by Government Decree\(^{33}\) in 2011, to implement the new Brazilian Public Sector Accounting Standards in Pernambuco. This was seen as a natural step because the new standards also called for cost accounting to be implemented in public agencies. The task force, under the aegis of the Finance Secretariat (SEFAZ/PE), comprises nine government agencies, including the Legislative and Judicial Powers, together with the Court of Accounts.

In addition to complying with the FRL and the new accounting standards, the objectives of Pernambuco’s cost system are to:

- support high level and line management decision making in order to improve the quality of public spending;
- inform the management and development of budget forward estimates;
- enable greater transparency in social accountability; and
- promote the dissemination of the culture of cost information as a way of satisfying increased social demands for public services without increasing public expenditure.

It should be noted that, due to the early stage of system development, no lower level regulation exists to institute the SIC/PE and mandate its use.

\(^{33}\) Decree 36.952 of August 11, 2011.
4.3. Methodology

The conceptual cost model was developed by SEFAZ/PE (with GT CUSTOS backing) and supported by an external consultant hired with resources from an IADB loan. The conceptual model is the result of several structured interviews with government agency officials and internal workshops aimed at consensus building.

The main user of the SIC/PE was defined as the senior management of the State Government: Secretaries and heads of government agencies. The main purpose of the cost information system is to compare similar government units and to understand the cost differentials between them. At present, system implementation is targeted at this specific audience, although interviews revealed the need for, and the benefits of, providing cost information at the line manager level. It was decided therefore to divide the information generated by the SIC-PE into two different perspectives: corporate and agency-specific.

The corporative perspective involves the SIC/PE generating cost information tailored to the needs of senior management, with the aim of informing costs at the agency (or departmental) level as well as at the function/sub-function, program, project or activity levels. For a line manager at, for example, the Education Secretariat, detailed cost information about schools can be invaluable.

Meanwhile, the agency-specific perspective will allow the SIC/PE to generate cost information that caters to the specific demands of these agencies and supports analysis on productivity, efficiency, and resource effectiveness. This approach will enable costs information to be provided on processes, sub-processes, products and services, e.g. specific costs information for the Education Secretariat can include the costs of organizational units, the costs of individual educational facilities (e.g. schools), costs per student, costs per educational level (e.g. primary, secondary, etc.), costs of finalistic processes assigned to the Education Secretariat (e.g. provision of primary education, school meals, etc.) and administrative costs.

The SIC/PE was developed to comply with certain information requirements, such as:

- relevance – cost information must influence users´ decisions;
- usefulness – the cost-benefit of possessing a costing system should be a positive gain for the state;
- opportunity – cost information should be readily available for supporting decision making;
- social value – cost information should allow more transparency and provide more evidence on how public resources are spent;
- reliability – the system should provide detailed information, supported by data published in accounting reports;
- specificity – information should be prepared in accordance with the specific purpose intended by its users;
comparability - cost information and events should be recorded consistently and uniformly, allowing comparisons and benchmark exercises between different government agencies and subdivisions;

- adaptability – the system should adapt to the needs and expectations of various organizational units and their users; and

- granularity - the system should be able to produce detailed data at different aggregation levels by generating different reports, but without forgoing comparability.

The cost object is designed to be flexible and tailored to a government agency’s needs. Both cost accumulation methods (process and job-order costing) will be used. The former will be used for public services (i.e. most of the cost objects), while the latter will be employed for specific cases. The cost measurement method will rely mainly on actual data, but estimates will also be used for budget projections.

SIC/PE will use three different cost assignment methods. The direct tracing cost assignment method will be used at the corporate perspective, while the ABC method will be used at the agency-specific perspective, with the exception of the State Secretariat of Health (SES/PE) which will use the absorption method already employed by the APURASUS system developed by the Federal Government and used by SES/PE.

The rationale for using three different cost assignment methods simultaneously derives from the need to accommodate the competing demands of several state clients. For example, SES/PE requires information at a more detailed level using the absorption method, since this is the method used by the nationwide system (APURASUS) and to which Pernambuco has adhered. The ABC method will be employed because certain government agencies require more detailed information to suit their needs.

The cost center structure is designed initially to replicate the state’s organizational structure. The conceptual model also foresees the development of a cost accountancy chart (more synthetic than the traditional accountancy chart) to classify resources according to their economic type. Finally, the SIC/PE will use accrual accounting information as the basis for generating cost information because, unlike the two other states, Pernambuco began developing its cost information system after implementing the new public sector accountancy standards that include accrual accounting.

In practice, the SIC/PE will adopt a five-step approach to generate cost information. These steps are summarized below (see also Figure 8):

- Costs are allocated to the cost centers that are responsible for managing them;
- Direct costs are allocated to products and services according to their use in the production of such services or products;
- The costs allocated in each cost center are linked to the processes and activities to which they contribute;
- To identify the cost drivers of each activity (which will also allow unit cost information to be obtained); and
- To allocate the activity costs to each product and service.
No structured, direct relationship with the budget is foreseen at this stage. The budget programs and subprograms will be cost objects and therefore will, in theory, allow for such linkage in the future.

Finally, regarding the periodicity of the cost reports, the SIC/PE will allow any periodicity required by the client. The conceptual model however proposes a management cycle involving reports issued monthly and the results analyzed and discussed within the government agency and its departments on a monthly basis. The results would be analyzed at the government level every three months.
4.4. Implementation Strategy

Based on the conceptual design, SEFAZ/PE will establish a unit within the State Treasury to take charge of implementing the cost system. This unit will be staffed with a project coordinator, IT analysts and three cost analysts responsible for one Secretariat each. At the agency level, this structure is complemented by a cost analyst located in the agency accounting sector, and hierarchically accountable to SEFAZ/PE. The cost analysts will be responsible for coordinating implementation of SIC/PE in their specific agencies and for preparing reports on the project for submission to the cost director at the Treasury and GT Custos.

It is envisioned that the SIC/PE will be implemented in three stages of one full calendar year each. Barring delays in implementation, the system is expected to be fully operational by the end of 2016. The first stage involves implementing the following corporate perspective tasks: ETL (Extract, Treat and Load), DW and definition of business and processing rules. The first stage is also expected to include implementation of the agency-specific perspective in six government agencies.

The second stage will involve preparing the corporate perspective cost reports and implementing the agency-specific perspective in a further five government agencies. After completing this stage, the corporate perspective of the SIC-PE would be fully implemented and operational. The third stage is expected to cover the implementation of the agency-specific perspective in the remaining five agencies.
In practice, the implementation of the SIC/PE will involve, at the outset, making the necessary changes in the existing corporate transactional systems, i.e. the introduction of a cost center and a budget action (budget program subdivision) field in two systems – SAD/RH and PE-Integrado. These changes will enable the SIC/PE to receive cost information on payroll, assets depreciation, services, per-diems and consumables. SEFAZ/PE will subsequently need to establish routines to ensure regular updating of the source data.

After the SIC/PE is created, costs will be visualized by the costs centers of the administrative units (e.g. hospitals, schools, prisons, etc.). This will provide management with a better picture for strategic and operational purposes. Furthermore, the costs centers of the administrative units will be classified by activity (e.g. hospital procedures, elementary schooling, prisoner rehabilitation, etc.), which will provide a more complete overview for management operations.

4.5. Technology

The SIC/PE is a transactional system that collects information from other State corporate and structural IT systems. These are already being readjusted to meet the cost center structure required by the system. The system will then construct a database using a DW type analytical system designed for OLAP (Online Analytical Processing). The IT architecture of the system comprises the following layers: data extraction, data processing and loading, and business rules management.

The state’s GFMIS (E-Fisco) is the main feeder system into the SIC/PE. However, given the granular level of cost information desired, not enough E-Fisco data is available for building the SIC/PE. Additional data therefore has to be obtained from other systems such as SAD/RH (HR and payroll system) and PE-Integrado (procurement, assets and stocks system). The only adaptation to the IT systems to date has been the creation of the cost center field in some transactional systems, including in the SAD/RH (the most complicated).

4.6. Successful Experiences and Reported Problems

The lessons learned from the development of the SIC/PE need to be regarded as provisional since the system is still being implemented. Certain lessons can however be drawn at this early stage.

The first relates to the difficulty of initiating a new project during the administration’s final year (2014) which coincided with the State capital’s hosting of the FIFA World Cup. To further complicate matters, the former Secretary of Finance resigned in March, 2014 to run for State Governor and the Governor also left office to run for President (of Brazil).

The second problem concerns the difficulties involved in implementing the cost center structure. To enable the SIC/PE to work correctly, all the transactional systems that feed the SIC/PE need the same organizational structure. This was not the case in Pernambuco, which meant that the organizational structure of different systems had to be
revised and harmonized in order to serve as cost centers. This also necessitated changes in the IT systems (e.g. the payroll system), which led to delay in developing the SIC/PE.

On a final note, it is important to draw attention to a major challenge: to seek to change the public administration culture, which at present is predominantly focused on budget accounting and reports as opposed to accrual accounting and cost information.
5. Summary

Brazilian Government agencies have for long been mandated to produce cost information. The Budget and Public Financial Management (PFM) legislation\(^{34}\) made this an official requirement as far back as 1964, being reinforced by the 2000 Fiscal Responsibility Law. Unfortunately, these important initiatives failed to produce practical results\(^{35}\).

More recently, following a decision taken by the National Treasury Secretariat (Secretaria do Tesouro Nacional – STN), responsible among other things for establishing rules to consolidate public sector accounts and for bringing Brazilian Public Sector Accounting Practices into line with International Public Sector Accounting Standards (IPSAS), the need for cost accounting and cost information was definitively put on the PFM reform agenda\(^{36}\). Subsequently, the CFC published a technical norm\(^{37}\) in 2011 outlining all the methodological requirements of a cost information system and mandating all public sector agencies to introduce such systems by end-2015. The STN simultaneously made a nationwide effort to align accounting rules, including cost accounting and cost information, to IPSAS (expected to be completed by 2015).

Against this background, subnational governments in Brazil are now moving quickly to adopt the new accounting standards and to establish cost accounting and cost information systems. Given that these rules and timeframes are legally binding, and in view of Brazil’s federative structure, the SNG have become a natural experiment of different costing approaches to public sector as well as source of real-life lessons in implementing and using cost information.

This chapter seeks to draw commonalities, and expose the differences; between the three above SNG cases and to review the implications of using cost information. To this end, the SNG approaches to external support, cost object definition, leadership, relationship with the budget, IT requirements, and use of the cost information will be addressed, together with other topics.

TABLE 1 summarizes how key features were handled in each jurisdiction. The following sections will group these features into common themes such as methodological approaches, governance arrangements, implementation strategy, etc., for discussing in more detail. The choice of states reported on here was based on the developmental stage of the cost information system in each state, the soundness of the approaches and Bank knowledge of, and engagement with PFM activities.

Some initial findings are listed below:

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\(^{34}\) Federal Law 4.320/1964.

\(^{35}\) It should be noted that despite the non-existence of lower level guidelines or any binding implementation schedule, the State of Bahia and the Municipality of Rio de Janeiro developed and implemented a cost information system in 2003 and 2000 respectively.

\(^{36}\) Mr. Nelson Machado, Deputy Minister of Finance at that time was instrumental in this initiative. An accountant by training, Mr. Machado’s PhD dissertation on the implementation of cost accounting in the public sector included a practical proposal for the state of São Paulo.

- Stewardship of the process heavily influences its outcomes. When the stewardship of the process is dependent on a single professional group and its members do not possess the appropriate skills mix, the use of cost information tends to fall short of its potential. For example, some accountants regard accrual accounting as a pre-requisite for generating cost information, and tend to overemphasize the need for exact information rather than that which is simply “good enough”. On the other hand, line agencies’ staff might support cost information that is probably not methodologically sound. Therefore, rather than having accountants or other professionals leading the development of the cost information effort (with their opinions prevailing), it is important to set up a multidisciplinary team, led by people with the correct mix of skills, and to establish some sort of collegiate arrangement to guide and implement the project.

- The generation of cost information in the three states primarily responded to a legal requirement and to comply with STN instructions. In Pernambuco, cost information evolved as a spinoff from the accounting convergence working group, while in Rio Grande do Sul it emerged as an internal task undertaken by the accountancy department. Although São Paulo began developing costing information in response to demands from the Finance Secretariat (SEFAZ/SP) and control agencies regarding the juvenile correctional agency, with the strategic objective of improving expenditure quality, the State acknowledges that the overriding legal requirement was also a significant motivating force.

- How cost information will inform the budget process is not clearly defined. For example, in Pernambuco actual cost information will be presented on an accrual basis, while the budget itself will not be prepared on an accrual basis. Meanwhile, cost information in São Paulo lends itself more to budget use since is focused on budget program costing and is undergoing a revision of budget programs. There is however no formal routine or process in place for incorporating this information in funding decisions.

- Gradual implementation is the preferred option. None of the states surveyed adopted a “big-bang” approach, involving the costing system (covering all expenditure) being deployed government-wide as a single, one-off exercise.

- No existing costing approach could be transferred from other jurisdictions, which made it essential for all the SNG to harness external support, at least in the initial stages.

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<tr>
<th>TABLE 1 – SUMMARY OF COSTING APPROACHES</th>
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<td>Cost centers</td>
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<td>Tailored vs. general approach</td>
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5.1. Status, Implementation Strategy and Support

None of the three states have fully implemented their costing system. Progress on implementation differs from one jurisdiction to another due to several reasons, ranging from starting date to methodological approach and the level of government support.

The State of Rio Grande do Sul already possesses an operational IT system to generate cost information reports, but not all government agencies or cost resources are included in the system. Furthermore, the state’s ability to cost program budgets and subdivisions is still being developed. São Paulo, on the other hand, has developed a mature costing methodology, applied on a pilot basis in four government agencies. Certain IT systems changes have been made and pilot cost information reports have been produced using Data Warehouse software. The system however needs to be rolled out to other Secretariats, and the IT system needs to be officially approved and used more widely. Finally, Pernambuco has only the conceptual model ready and is in the early stages of implementing its IT system.

Of the three states, Rio Grande do Sul has made most progress on implementation, having started to develop its costing system back in 2004 (which explains its current more advanced stage of development), while São Paulo and Pernambuco did not start until 2010 and 2011 respectively.

This difference between the States can also be attributed to their different approaches: São Paulo’s was more ambitious, while Rio Grande do Sul opted for a more modest approach. São Paulo for example, envisaged a complete revision of its budget programs (the responsibility of the SPDR/SP), prior to developing and implementing its costing system. São Paulo also had three external organizations (IMF, FIPE and IADB) to support its efforts during the process, while Rio Grande do Sul was confined to hiring two academics to help kick-start system development. A further difference was that development of the system by São Paulo involved three Secretariats (SEFAZ/SP, SPDR/SP and SGP/SP), while in Rio Grande do Sul the costing system was developed internally at SEFAZ/RS. Finally, São Paulo decided to cost primarily budget programs and their subdivisions (public services), opposing a tradition of managing the budget by appropriation (expenditure items by economic classification), rather than directly costing government units, as done by Rio Grande do Sul.
The São Paulo approach required more preparation in terms of research and cultural change, and it was also more coordination-intensive. Due to the latter, the São Paulo approach was more dependent on broader political support from senior management and accordingly suffered greater discontinuity during the government transition period. More recently (in 201438) Pernambuco also reported delays due to the change of Governor and Finance Secretary, which obliged the technical team to attract the new senior management´s interest in the project.

In the light of the above it is not surprising that the São Paulo cost information system lags behind that of Rio Grande do Sul. It is worth noting however that the São Paulo approach proved to be more effective in generating, harmonizing and disseminating know-how among team members, as well as generating a number of technical reference documents for system users and other stakeholders. A further positive result was to engage line agencies at an early stage, instilling a cost management culture in them and ensuring that the cost information produced was relevant and useful.

Pernambuco has not established an operating cost information system to date - a substantial delay by comparison with São Paulo´s (initiated only one year previously). While the formal starting date was marked by the decree establishing the GT Custos, efforts were concentrated primarily on adopting the new accounting standards and leaving the development of the costing system for later. The final version of Pernambuco´s conceptual cost information model did not appear until October 30, 2013.

In terms of support, São Paulo benefited from more external support than the other states. São Paulo has had three organizations supporting and/or financing its efforts not only at the design stage, but also during implementation, while both Rio Grande do Sul and Pernambuco had methodological support only at the conceptual stage. Pernambuco also received financial support from the IADB to develop the costing model. While this substantial support benefited São Paulo´s exercise in terms of theoretical soundness it hampered coordination and delayed deployment.

As for implementation strategy, the three states took a broadly similar approach. They all opted to implement the system gradually, particularly in terms of coverage of government agencies. None of the states has yet implemented a fully operational system. Minor differences of strategy include the following: in Rio Grande do Sul the cost resources are being incorporated gradually in the system, meaning that the current cost information does not yet capture 100 percent of the resources consumed, although it covers most of the resources39; the scheduling of IT system development - Rio Grande do Sul and Pernambuco decided to develop the system immediately after finalizing the conceptual model, while São Paulo piloted the methodology for producing cost information prior to embarking on IT system development (first version due in January, 2015); and, unlike the other two states, São

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38 In March 2014, the Secretary of Finance and the Governor stepped down in order to comply with the rules governing elections to run for State Governor and President respectively. The election of the former Secretary of Finance as Governor might result in a boost for system development.

39 São Paulo currently has on average 85% of the resources accounted for in the system. However, it expects to have 100% by the end of 2014 once the system has been officially launched.
Paulo was the only one to test the fit of the cost information before designing and rolling out the complete system.

5.2. Leadership and Governance Arrangements

In all three states the Finance Secretariats took the lead role in developing the system; however the responsibility for championing the development of the system within the Secretariats and the degree of involvement of other government agencies throughout the several stages of the project differed a lot from one State to another.

In Rio Grande do Sul and Pernambuco, accountancy professionals were in charge of project development, while in São Paulo it was in the hands of broader PFM professionals. In Rio Grande do Sul, system development was spearheaded by the Accounting and Comptroller-General’s Office, while in Pernambuco the responsibility fell to staff that had been previously in charge of implementing the new accounting standards. In São Paulo, the leadership started with the office of the Secretary of Finance, passing then to the Coordination of Financial Administration\(^{40}\), which handles all PFM-related issues in the state).

The different management approaches are producing different outcomes. The São Paulo system (SCSP/SP) for example is at a more advanced stage, with, has much more direct management applicability than the Rio Grande do Sul one. This can be attributed to the fact that development of the latter system focused more on complying with the legal requirement and strict adherence to accounting standards, while the former was targeted at promoting cost effective public policy decision making.

The São Paulo case provides a good lesson on the benefit of having a multidisciplinary team to develop the cost information system. While it is essential to have accountants on the team (guardians of the cost accountancy methodology), it is equally important to include other PFM professionals and line agency staff given that they know the type of cost information needed and how best to use it. The key is to create a balance between obtaining timely and useful information and information that reflects the highest accounting standards.

More important than the discussion of whom should lead the cost information efforts - accountants or other professionals, is the discussion of the required skills profile of the professionals involved in project design and management. Brazil suffers from a shortage of accountancy graduates specialized in public sector business, and it is difficult to find existing public sector accountants with the right set of skills. Other problems include the differences between public and private sector accounting rules and the low penetration of managerial accounting among public sector professionals.

As for governance arrangements, the three states take markedly different approaches. Rio Grande do Sul’s is more autonomous while São Paulo’s is more collegiate (Pernambuco is somewhere in the middle). As already noted, Rio Grande do Sul’s cost information system

\(^{40}\) CAF’s role includes budget and financial execution, debt management, accountancy and payroll. Planning and budgeting are not part of CAF’s mandate.
was developed internally in CAGE, while São Paulo benefited from the direct input by two other Secretariats at the conceptual stage and by four line government agencies at the pilot stage. Finally, the staff responsible for the cost information system in Pernambuco (SIC/PE) were accountable to \textit{GT Custos}, a multi-agency steering committee.

These choices produced different outcomes. The autonomous approach chosen by Rio Grande do Sul enabled it to establish an operating cost system before the other states, but this was achieved at the cost of low system dissemination and usage: other agencies were invited to familiarize themselves with the system and assess the usefulness of the cost information for their own purposes only after the system began producing cost information.

São Paulo’s arrangements were markedly different. The state’s collegiate approach entailed a “work in progress” cost information system, even after four years of development, though even at the pilot stage the cost information reports that were produced enabled some government agencies to make decisions that improved the cost-effectiveness of their programs.

Development of the costing system in Pernambuco is still at an early stage and it is not possible to assess how the state’s approach will influence the outcome. One can only hypothesize based on the experience of the more advanced cases of São Paulo and Rio Grande do Sul.

5.3. Methodological Issues

The three states do not differ noticeably in terms of accountancy methodology. All have largely or exclusively adopted the accumulation method by process, an actual cost data cost measurement method and the direct tracing assignment method. It is worth noting that all three states rejected any cost proration solution. In other words, costs are directed to the cost objects exactly according to their contribution and are not assumption-based.

Regarding the cost assignment method chosen, Pernambuco represents a minor exception: it will use the same direct tracing method for the corporate perspective of SIC/PE as the other two states, but will use other methods such as (mainly) ABC (Activity Based Costing) at the agency-specific perspective. The absorption costing method will also be used for the Health Secretariat.

This basket of methods to be applied by Pernambuco calls attention to another characteristic: the dual approach of the state’s cost information system. All the states acknowledge that line agencies have cost information requirements that might involve work at a very detailed level and that do not warrant inclusion in a corporate cost information system. The solution found by São Paulo has been to allow these agencies to develop and use other cost solutions as well as the corporate cost information system. The latter solution is not intended to substitute or compete with the state-wide cost information system, but to complement the former by unearthing the information available.

Pernambuco however decided to incorporate such detailed cost information requirements in its system by creating an agency-specific perspective in the SIC/PE, resulting
in all cost information being generated by a single system. It is expected that by the end of 2016 all the government agencies will have implemented this layer of the system and will be able to retrieve the more detailed cost information needed for lower level decision making.

A further important methodological difference between the three states relates to the primary cost object chosen. Pernambuco and Rio Grande do Sul both decided to use initially the government organizational structure as a cost object and subsequently cost budget functions and programs. São Paulo has taken the exact opposite approach, starting by choosing public services (a subdivision of the budget programs) as the cost object. Organizational units were identified as cost centers primarily to identify the providers of the public services to be costed.

This means that initially Rio Grande do Sul and Pernambuco will have information about the cost of a school, prison or Secretariat, while São Paulo will be in a position to retrieve the costs of primary education or the health services provided to prisoners. In addition, São Paulo will have the same cost information by government unit as the other two states, but only SP will be able (at least in this first stage) to have cost information by public service and government unit simultaneously. In practice, São Paulo will know the cost of providing primary education at a specific school. In addition, because the program budget and cost center structures were revised, this information will be relevant to decision makers.

The first step taken by Rio Grande do Sul and Pernambuco was to establish a cost center structure, defining the cost center at the lowest cost accumulation level and the way in which costs are aggregated to higher cost centers. This involved two decisions: firstly to decide the level at which cost would be recorded and the hierarchy of the cost centers, e.g. should hospitals be the lowest cost center level at which cost is recorded, or should a hospital department (A&E unit, intensive care unit, etc) be the lowest level? Secondly, should hospitals or their departments be consolidated regionally or according to their medical specialties?

In São Paulo´s case the first step was to establish the service matrix that would select the public services to be costed. These service matrixes are linked to the program budget structure (given that the public service is a subdivision of government budget programs), as well as to the organizational structure of the state. Cost centers which also represent the administrative structure of the state were linked to the public services provided by the state. In this way the SCSP/SP is able to provide firstly the actual cost of the public service and then it can drill down or compare the exact cost of that specific public service between all the government units (or cost centers) that provide that service. As a corollary, the SCSP/SP can also provide the cost by government unit, but such information is of limited use since it already possesses more detailed information of public service costs per government unit.

Pernambuco and Rio Grande do Sul record costs at the government unit level (e.g. schools or hospitals), but at this initial stage the service provided and the cost center are not linked. This makes cost comparisons and benchmark exercises difficult: these can only be done if a one on one linkage exists between the service and cost center or if cost centers are

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41 Both states have however chosen not to revise their current program budget structure.
very similar. In practice, comparisons can be made in cases where each school provides only primary or secondary education, or if the schools provide both levels of education in the same proportion.

The methodological approach developed by São Paulo is clearly more sophisticated than that of the other two states. It uses managerial techniques (the 5P approach) to organize its costing methodology, and its conceptual model consists of four models.

5.4. Technology

The technological aspect is the least controversial. All three states adopted virtually the same IT architecture, requirements and software solutions. The costing system is an analytical system (São Paulo) or a transactional system feeding into an analytical system (Rio Grande do Sul and Pernambuco). The information is retrieved and made available through a Data Warehouse system, preferentially the same as that for retrieving data from the GFMIS, thus reducing training requirements for system users.

The main data source for the costing system was the GFMIS. However in all the states the GFMIS information had to be supplemented by data from other systems such as the human resources and payroll, procurement and stock systems. Occasionally information from agency-specific systems was needed. The decision to retrieve data from the existing IT systems was justified by all three states in order to avoid double data entry and ensure consistency.

In all three states a number of changes had to be made in the existing IT systems to ensure retrieval of new data from corporate system users. These changes mainly involved including some information fields such as cost center and budget program subdivisions in all systems, assuring a common denominator among them.

All the IT needed for implementing the costing system was developed internally by State-owned IT enterprises, chosen not on efficiency grounds but because, being responsible for the GFMIS, they possess knowledge-specific assets that made outsourcing of IT system development unviable in terms of cost and time.

5.5. Users, Purposes and Relationship with Budget

It is difficult to ascertain to what extent the costing information systems were developed simply to respond to a legal requirement, or if these were mainly autonomous initiatives taken by the three states. All respondents unanimously confirmed that the legal requirement was instrumental in kick-starting system development, in engaging the interest of senior management and in convincing line managers to participate in developing and implementing the systems.

The question arises of whether the efforts to produce cost information are sustainable. If the cost information system was developed solely as a response to a legal requirement, it is likely that it will lack substantial impact and will be useless and outdated in the longer term. It is essential therefore that the governments of the three states (as well as any other State
Governments aiming to produce cost information, have a clear view of the potential users and uses of the collected data, eschewing mere formality and preferably using it in planning, budgeting and procurement processes etc, thus ensuring the sustainability of the system.

The main users of the system in São Paulo and Pernambuco are defined as senior government managers, e.g. Secretaries, and middle management practitioners responsible for decision making at government-run hospitals and correctional facilities, etc. In Pernambuco’s case, this audience will be served by the agency-specific perspective of the SIC/PE.

The main users of the costing system in Rio Grande do Sul to date are the sectorial costing groups established in the Secretariats that have implemented CUSTOS/RS, although systematic use of the cost information generated by the system to senior management appears to be lacking.

The only system clearly linked to the budget was the SCSP/SP (São Paulo), which focused on budget programs subdivision (public services) as cost objects and made system deployment conditional on a revision of the program budget structure. In Rio Grande do Sul, although the system is already operational (one of its stated objectives is to inform budget decisions) this has not been done. Discussions are now underway between SEFAZ/RS and SEPLAG/RS to assess whether cost information can be used to inform the budget process.

The systems aim inter alia to inform budget decisions (as in the case of São Paulo), and to conduct benchmark exercises among government units (São Paulo and Pernambuco). Finally, there are other uses to the cost information rather than just serving as an input to budgeting, such as project selection, procurement, setting government’s fees, prices and program evaluations as noted in (IFAC, 2000), that has not been mentioned by any Government.

5.6. Conclusion

This survey is not intended as a complete and authoritative review of the costing approaches used by the States of São Paulo, Rio Grande do Sul and Pernambuco. It is a first attempt to review cost information efforts by some of Brazil’s leading states, and to compare their approach in terms of results obtained to date. We acknowledge that a more complete survey would involve a more detailed questionnaire, followed by interviews but, due (mainly) to the “work-in-progress” status of the initiatives, we consider that any attempt to produce a more definitive assessment at the present moment could be regarded as premature. It follows that our conclusions are provisional.

We believe nevertheless that this review does constitute valuable material for other state governments that are initiating or considering implementing a cost information system. We hope that it serves as a benchmark exercise for those that are in the process of implementing a cost information system, as well as helping them to correct errors during implementation. The review also describes a range of public sector costing efforts that do not conform to the traditional Westminster Medium Term Expenditure Framework model.
Two key questions need to be understood and answered before embarking on any development: (i) who will use the cost information?; and (ii) what cost information is needed? The answers to these two questions define two decisions regarding methodology and implementation: defining the cost object and deciding who should manage and be involved in the development and implementation of the system.

In Rio Grande do Sul it was not clear who the main audience of the system was. As a result the decision regarding the definition of the cost object was left to CAGE, resulting in virtually no external support or consultation being provided for developing the system and the system is not being used systematically at present. By contrast, São Paulo first identified a clear use for the cost information, as well as prospective clients, followed by efforts to sell the system to them and involve them from the early stages of the process. Although São Paulo’s costing system is still at the pilot stage, it has already produced tangible results (unlike Rio Grande do Sul).

These key questions and the response given by these two states also lead to two other key conclusions, which are firstly that the stewardship of the process substantially influences its outcomes. If the process is left in the hands of a single professional group without the correct skills mix, the cost information may not be used as fully as possible. Some accountants, for example, tend to view accrual accounting as a pre-requisite for generating cost information, and overemphasize the need for exact as opposed to “good enough” information. On the other hand, line agency staffs might produce methodologically unsound cost information. It is therefore important (rather than arguing over which type of professionals, accountants or others, should be in charge) that the cost information team is multidisciplinary, that its managers possess the right skills mix and that a collegiate arrangement exists for guiding and implementing the project.

Another key observation relates to the trade-off posed by the autonomous vis-à-vis the collegiate approach. In Rio Grande do Sul, where system development and implementation was managed by a single agency, the system progressed quicker than that of São Paulo, where several different agencies needed coordinating. It is worth noting that the collegiate approach requires more involvement by senior management, particularly by the agency chiefs, and possibly, in addition, more robust support from the head of Government. It remains to be seen whether Pernambuco, with its more collegiate approach (and less coordination needed than São Paulo), is able to conciliate its collegiate approach with tight deadlines (the state intends to have everything implemented within three years).

This survey amply confirms that government-wide systems cannot be implemented overnight. The preferred option was gradual implementation. None of the three states chose to adopt a “big bang” approach to deploying a government-wide costing system covering all expenditure.

All three states are anxious to find ways of dealing with the cultural changes stemming from the introduction of cost information. This is a challenge that involves decision makers being convinced of the need for cost information, and line managers fully buying into the concept rather than regarding cost information as simply one further level of control.
introduced by central Secretariats. All three states agree that this is a difficult issue to which none has found the solution.

It is worth mentioning the importance of legal and/or regulatory support for cost information systems. This is very much in line with Brazil’s codified tradition. All three states acknowledged that the legal requirement to implement a costing system was a major motivation for developing the system, although perhaps not the primary reason.

On a final note, it is clear that although the methodological and IT choices taken by the three states were fairly similar, it remains difficult to simply transfer the cost system from one jurisdiction to another, because the better the cost system the more tailored to respond to the managerial needs of a states it should be and thus system customization will always be required.
6. GLOSSARY

1. The first column contains the English name of the corresponding concept in Portuguese (second column).

2. The first box in Column 3 contains the Portuguese version of the concept as used by the Brazilian Accountancy Board Standard of Cost Information Systems (NBCT 16.11). If unavailable, the box is left blank (N.A) or the definition is extracted from material used in one of the case studies or originates from Federal Government sources. (GF).

3. The IFAC definition (Column 3, box 2) is that used by the International Federation of Accountants in its IFAC, 2000 report.

4. The FASAB definition Column 3, box 3) is that used by the Statement of Federal Financial Accounting Standards 4: Managerial Cost Accounting Standards and Concepts issued by the Federal Accounting Standards Advisory Board.

<table>
<thead>
<tr>
<th>Cost Center</th>
<th>Centro de Custo</th>
<th>Portuguese</th>
<th>IFAC</th>
<th>FASAB</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>RS: nível mais analítico de acumulação de valores (custos) do subsistema de contabilidade de custos. GF: é o menor nível de alocação de recursos humanos, serviços materiais e patrimoniais, representando uma atividade (objeto de custeio) geradora de um produto (bem ou serviço).</td>
<td>Responsibility center: an organizational unit headed by a manager or a group of managers who are responsible for its activities.</td>
<td>Responsibility center: an organizational unit headed by a manager or a group of managers who are responsible for its activities. Responsibility centers can be measured as revenues centers (accountable for revenues/sales only), cost centers (accountable for cost/ expenses only), profit centers (accountable for revenues and costs) and investment centers (accountable for investments, revenues and costs).</td>
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<tr>
<td></td>
<td></td>
<td>Proposed Definition</td>
<td>It is the lowest level of allocation of resources (staff, services, materials and assets) and thus the lowest level of cost accumulation. It can be a cost object or have its costs traced to other cost objects such as a public service. The cost center or the manager of the cost center does not need to be responsible for the allocation decision of its resources as well as holding responsibility for its activities as understood by the broader concept of responsibility centers.</td>
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<tr>
<td>Cost Driver</td>
<td>Direcionador de custo</td>
<td>Portuguese</td>
<td>IFAC</td>
<td>FASAB</td>
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<tr>
<td></td>
<td></td>
<td>N.A.</td>
<td>Any factor that causes a change in the cost of an activity or output resulting in the activity consuming fewer or greater amounts of resources.</td>
<td>Any factor that causes a change in the cost of an activity or output.</td>
</tr>
<tr>
<td></td>
<td>Proposed Definition</td>
<td>The definition adopted in this report follows the proposed definition by IFAC: Any factor that causes a change in the cost of an activity or output resulting in the activity consuming fewer or greater amounts of resources.</td>
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<tr>
<td>Cost Object</td>
<td>Objeto de custo</td>
<td>Portuguese</td>
<td>Any factor that causes a change in the cost of an activity or output resulting in the activity consuming fewer or greater amounts of resources.</td>
<td>É a unidade que se deseja mensurar e avaliar os custos. Os principais objetos de custos são identificados a partir de informações dos subsistemas orçamentários e patrimonial.</td>
</tr>
<tr>
<td><strong>IFAC</strong></td>
<td><strong>An activity, output or item whose cost is to be measured. In a broad sense, a cost object can be an asset account, organization, function, a task, a product, a service or a customer.</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>FASAB</strong></td>
<td><strong>Refers to an activity or item whose cost is to be measured. In a broad sense, a cost object can be an organizational division, program, activity, task, product, service or customer. However, the purpose of cost accounting by a responsibility segment is to measure the cost of its outputs. Thus, the final cost objects of a responsibility segment are its outputs.</strong></td>
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<tr>
<td><strong>Proposed Definition</strong></td>
<td><strong>It is the unit whose cost is going to be measured and evaluated. It can be an organizational unit, a government function, budget program or action as well as a task, a public service or even a customer.</strong></td>
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| **Direct Cost** | **Custo Direto** |
| **IFAC** | **A cost that is specifically identified with a single cost object, or the cost of resources directly consumed by an activity. Direct costs are assigned to activities by direct tracing of units of resources consumed by individual activities.** |
| **FASAB** | **The cost of resources directly consumed by an activity. Direct costs are assigned to activities by direct tracing of units of resources consumed by individual activities. A cost that is specifically identified with a single object.** |
| **Proposed Definition** | **A cost that is specifically identified with a single cost object or the cost of resources directly consumed by an activity.** |

| **Indirect Cost** | **Custo Indireto** |
| **IFAC** | **A cost that cannot be identified specifically with, or traced to a given cost object in an economically feasible way.** |
| **FASAB** | **The costs of resources that are jointly or commonly used to produce two or more types of outputs but that are not specifically identifiable with any of the outputs.** |
| **Proposed Definition** | **A cost that cannot be identified specifically with or traced to a given cost object in an economically feasible way, whose assignment should be carried out through proration or the identification of cost drivers.** |

| **Accumulation Method** | **Sistemas de acumulação** |
| **IFAC** | **Job order costing: a method of cost accounting that accumulates costs for individual jobs or lots. A job may be a service or a manufactured item, such as the repair of equipment or the treatment of a patient in a hospital. Process costing: a method of cost accounting that first collects costs by processes and then allocates the total costs of each** |
| **IFAC** | **Corresponde à forma como os custos são acumulados e apropriados aos bens e serviços e outros objetos de custos e estão relacionado ao fluxo físico e real da produção. Os sistemas de acumulação de custos no setor público ocorrem por ordem de serviço ou produção e de forma contínua. Por ordem de serviço ou produção é o sistema de acumulação que compreende especificações predeterminadas do serviço ou produto demandado, com tempo de duração limitado. De forma contínua é o sistema de acumulação que compreende demandas de caráter contínuo e são acumulados ao longo de** |

Portuguese: **É todo custo que é identificado ou associado diretamente ao objeto de custo.**
process equally to each unit of output flowing through it during an accounting period.

**FASAB**

Cost accumulation is the process of collecting cost data in an organized way. The standard requires costs to be accumulated by responsibility segments. Job order costing is a costing methodology that accumulates and assigns costs to discrete jobs. The word “jobs” refer to products, projects, assignments or a group of similar outputs. Process costing is a method of cost accounting that first collects costs by processes and then allocates the total cost of each process equally to each unit of output flowing through it during an accounting period.

**Proposed Definition**

The way costs are accumulated and assigned to cost objects. Costs can be accumulated according to two methods: job order or process. Job order costing is a costing methodology that accumulates and assigns costs to discrete jobs. The word “jobs” refer to products, projects, assignments or a group of similar outputs. Process costing is a method of cost accounting that first collects costs by processes and then allocates the total cost of each process equally to each unit of output flowing through it during an accounting period.

<table>
<thead>
<tr>
<th>Cost Measurement Method</th>
<th>Sistemas de custeio</th>
<th>Portuguese</th>
<th>IFAC</th>
<th>FASAB</th>
<th>Proposed Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proposed Definition</strong></td>
<td>The way costs are accumulated and assigned to cost objects. Costs can be accumulated according to two methods: job order or process. Job order costing is a costing methodology that accumulates and assigns costs to discrete jobs. The word “jobs” refer to products, projects, assignments or a group of similar outputs. Process costing is a method of cost accounting that first collects costs by processes and then allocates the total cost of each process equally to each unit of output flowing through it during an accounting period.</td>
<td>Está associado ao modelo de mensuração e desse modo podem ser custeados os diversos agentes de acumulação de acordo com diferentes unidades de medida, dependendo das necessidades dos tomadores de decisões. No âmbito do sistema de custeio, podem ser utilizadas as seguintes unidades de medida: custo-histórico, custo-corrente, custo estimado; e custo-padrão.</td>
<td>N.A.</td>
<td>Actual cost: an amount determined on the basis of cost incurred including standard cost properly adjusted for applicable variance.</td>
<td>The way costs are measured in monetary terms. The applicable alternatives are the following: historical cost, actual cost, estimated cost and standard cost.</td>
</tr>
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</table>

**Cost Assignment Method**

<table>
<thead>
<tr>
<th>Método de Custeio</th>
<th>Portuguese</th>
<th>IFAC</th>
<th>FASAB</th>
<th>Proposed Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proposed Definition</strong></td>
<td>The way costs are assigned to a specific cost object. In the Brazilian context, five specific costing methods are accepted: “direto”, “variável”, absorption cost, by activity</td>
<td>Refere-se ao método de apropriação de custos e está associado ao processo de identificação e associação do custo ao objeto que está sendo custeado. Os principais métodos de custeio são: direto; variável; por absorção; por atividade; pleno.</td>
<td>Cost assignment is a process that identifies cost with activities, outputs or other cost objects. There are three methods of cost assignment, listed here in order of preference: (a) directly tracing costs wherever economically feasible; (b) cause and effect when determinable; and (c) allocating costs on a reasonable and consistent basis.</td>
<td>A process that identifies specific costs with programs, outputs, activities or other cost objects. There are three appropriate methods of cost assignment, listed here in order of preference: (a) directly tracing costs whenever economically feasible; (b) cause and effect when determinable; and (c) allocating costs on a reasonable and consistent basis.</td>
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</tbody>
</table>

| **Actual cost:** | an amount determined on the basis of cost incurred including standard cost properly adjusted for applicable variance. | | | | |
and full. In the international realm, three more generic approaches are accepted: (a) directly tracing costs; (b) cause and effect and (c) allocating costs on a reasonable and consistent basis.

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
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<tbody>
<tr>
<td>Direct Tracing</td>
<td>Direct Tracing applies to resources that are directly used in the production of an output. The method of direct cost tracing usually relies on the observation, counting, and/or recording of the consumption of resources units, such as staff hours or days that are spent on a project or assignment, or gallons of fuel consumed in a transport mission.</td>
</tr>
<tr>
<td>Proposed Definition</td>
<td>According to the Brazilian Standards, the cost assignment method assigns all costs – fixed and variable – directly to each cost object without any cost proration. In this respect, it is similar to the direct tracing method preferred and recommended by IFAC. However, the direct tracing one does not call for tracing of all costs. In practice, in the case studies surveyed, all the jurisdictions were not tracing all costs. Therefore they could not be strictly classified as using the “custeio direto” method. Nevertheless, for the purposes of this report “direct tracing” will be used as the equivalent of “custeio direto” and the requirement that all costs be traced will be relaxed.</td>
</tr>
<tr>
<td>Proposed Definition</td>
<td>This method assigns only the variable costs – costs that vary with the production level - to the cost objects and considers the fixed costs as period expenses.</td>
</tr>
<tr>
<td>Proposed Definition</td>
<td>A cost assignment method that assigns (absorbs) all production costs to the respective cost objects. The costs assigned include those that do and do not vary with the level of activity performed. It is compatible with cost proration and the use of cost drivers. Depending on the references used, it can be used interchangeably with the full cost concept. However, for the purpose of this report, the absorption costing method will not require the assignment of all costs and therefore will be referred only as absorption costing method. The assignment of all costs will be referred to the full costing method.</td>
</tr>
<tr>
<td>Full Costing Method</td>
<td>The sum of all costs required by a cost object, including the costs of activities performed by other entities, regardless of</td>
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<table>
<thead>
<tr>
<th>Description</th>
<th>Portuguese</th>
<th>IFAC</th>
<th>FASAB</th>
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<tbody>
<tr>
<td>Direct Tracing</td>
<td>É o custeio que aloca todos os custos – fixos e variáveis – diretamente a todos os objetos de custo sem qualquer tipo de rateio ou apropriação.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Proposed Definition</td>
<td>Que apropria aos produtos ou serviços apenas os custos variáveis e considera os custos fixos como despesas do período.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Proposed Definition</td>
<td>Que consiste na apropriação de todos os custos de produção aos produtos e serviços.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Proposed Definition</td>
<td>(Full) Absorption cost is a method of costing that assigns (absorbs) all labor, material and service/manufacturing facilities and support costs to products or other cost objects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed Definition</td>
<td>A cost assignment method that assigns (absorbs) all production costs to the respective cost objects. The costs assigned include those that do and do not vary with the level of activity performed. It is compatible with cost proration and the use of cost drivers. Depending on the references used, it can be used interchangeably with the full cost concept. However, for the purpose of this report, the absorption costing method will not require the assignment of all costs and therefore will be referred only as absorption costing method. The assignment of all costs will be referred to the full costing method.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Costing Method</td>
<td>N.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Funding Sources</strong></td>
<td><strong>FASAB</strong></td>
<td>The total amount of resources used to produce the output. More specifically, the full cost of an output produced by a responsibility segment is the sum of: (1) the costs of the resources consumed by the responsibility segment that directly or indirectly contributes to the output, and (2) the costs of identifiable supporting services provided by other responsibilities segments within the reporting entity and by other reporting entities.</td>
<td></td>
</tr>
<tr>
<td><strong>Proposed Definition</strong></td>
<td><strong>It is the cost assignment method that assigns absolutely all costs to the cost object. It is compatible with cost proration and the use of cost drivers.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity Based Costing – ABC</strong></td>
<td><strong>Portuguese</strong></td>
<td>Que considera que todas as atividades desenvolvidas pelas entidades são geradoras de custos e consomem recursos. Procura estabelecer a relação entre atividades e os objetos de custo por meio de direcionadores de custos que determinam quanto de cada atividade é consumida por eles.</td>
<td></td>
</tr>
<tr>
<td><strong>IFAC</strong></td>
<td>A cost accounting method that measures the cost and performance of process-related activities and cost objects. It assigns cost to cost objects based on their use of activities, and recognizes the causal relationship of cost drivers to activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FASAB</strong></td>
<td>A cost accounting method that measures the cost and performance of process-related activities and cost objects. It assigns cost to cost objects, such as products and customers, based on their use of activities. It recognizes the causal relationship of cost drivers to activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Proposed Definition</strong></td>
<td><strong>It is a cost assignment method that measures the cost and performance of process-related activities and cost objects. It assigns cost to cost objects based on their use of activities, and recognized the causal relationship of cost drivers to activities.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Common Cost</strong></td>
<td><strong>Portuguese</strong></td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td><strong>IFAC</strong></td>
<td>The cost of resources employed jointly in the production of two or more outputs that cannot be directly traced to any of those outputs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FASAB</strong></td>
<td>The term “common costs” refers to the cost of maintaining and operating facilities and other resources that cannot be directly traced to any one of the activities or outputs that share the resources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Proposed Definition</strong></td>
<td><strong>The cost of resources jointly employed in the production of two or more outputs that cannot be directly traced to any of those outputs.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. References


