

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

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Abstract

This paper reviews international practices for ‘bottom-up costing’ for medium-term expenditure frameworks. Medium-term expenditure frameworks are important because they incorporate the multi-annual nature of the fiscal policy into the budget process, mitigating its short-term bias. They also allow for the incorporation of the effects of policy decisions and provide for a comprehensive fiscal sustainability picture. However, there are significant gaps in current understanding of how costing and cost information is implemented within medium-term expenditure frameworks. The objective of this paper is to assemble information on practices used in 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. The overall findings

are that current costing practices fall short of the declared objectives of medium-term expenditure frameworks. The report makes some specific observations on the status of costing practices within the surveyed jurisdictions, namely that: (i) although there is no typical medium-term expenditure frameworks, some features tend to be more compatible with a greater role for bottom-up costing; (ii) where costing practices are specified, they are generally expected to be used across the entire budget, but in practice the focus is on new or expanded programs; (iii) the capacity to distinguish existing and new programs is important in utilizing cost information; (iv) the distinction between conventional program costing and forecasting helps to explain differences in costing approaches; and (v) where they are specified, costing methodologies are recommended but not mandated.

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

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1. Purpose and scope of review

1.1 Background

The aim of the paper is to review international practices for determining medium term resource needs of spending agencies or ‘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.

This paper 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.

The focus of this paper 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 much more of an economic and 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.

The paper identified two key issues that were to frame the report and its approach. The first relates to the current treatment of MTEFs in the technical literature and the way this tended to emphasize general design principles rather than the practical detail of implementation. 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.

1.2 Cost practices for MTEFs: A gap in the technical literature

The first issue 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, 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 emphasizes 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 drivers’ (World Bank 2013, 65).¹ 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 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 emphasizes 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 be brought to bear.

A primary objective of the paper 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 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).

1.3 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 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.²

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 definitions, improving the *accuracy* of basic cost information and supporting *capability development* across the public sector (see, for example, New Zealand Treasury 1994, 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 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.

The distinction can be illustrated using the example of a program delivering training services to assist unemployed people to 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)

² 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.

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 an 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 paper will, as far as possible, ‘unbundle’ the two sets of practices for description and analysis.

1.4 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. The secondary data sources comprise review of relevant technical and scholarly literatures.

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: (i) membership of the OECD group of advanced economies; (ii) evidence of either being a reform leader or having significant recent reform experience, (iii) representative of different ‘administrative traditions’ to demonstrate MTEF practice across a range of institutional arrangements and cultural contexts; and (iv) supported by a reasonable level of access to official documentation and secondary analysis of reform (principally in English).

Exhibit 1. OECD case study selection

Country	PFM Reform Experience	Administrative Tradition ³
Australia	Reform leader	Westminster Common law / federalist
Austria	Recent MTEF reform	Codified Germanic / federalist

³ Descriptors for administrative traditions are based on typologies set out in Painter and Peters (2010).

Canada	Reform leader	Westminster Common law / federalist
Netherlands	Recent MTEF reform	Codified Germanic

Following an overview in Part 2 that surveys the design and implementation of MTEFs, the paper 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). 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.

2. Defining and implementing MTEF

2.1 Defining a medium term expenditure framework

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 PFM developments, the MTEF is an important way of addressing some of the key shortcomings 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, an MTEF integrates the annual budget formulation cycle with a medium-term planning process.

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 the implementation of an MTEF. For illustrative purposes, we can define an MTEF as a multiyear expenditure planning and management framework that typically contains three elements: (i) a medium term envelope of aggregate resources set by the

finance ministry⁴ that is consistent with macroeconomic stability and government policy priorities (a ‘top-down’ component); (ii) an estimate of the medium term resource needs (or costs⁵) of the existing activities of spending ministries (a ‘bottom-up’ component); and (iii) 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 and progresses to incorporate the second and third elements. 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, an MTEF is usually associated with the three key technical objectives of public budgeting: (i) aggregate fiscal discipline, or better control over budget totals; (ii) allocative efficiency, or more strategic allocation of resources between priorities; and (iii) technical efficiency, or more efficient use of resources.

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 signaling 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.

⁴ Executive government central agency with primary responsibility for the fiscal framework, budget process and financial management systems

⁵ 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

- 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 authorization.

Second, whilst the three objectives are often enumerated as discrete purposes, in reality they can conflict – for example, the increased certainty necessary for aggregate control is not always consistent with the flexibility required for reprioritizing 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 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 categorizes 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. 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.⁶

The second category is ‘indicative versus binding’ MTEFs (Allen and Tommasi 2001, 184-5; Harris, Hughes, Ljungman and Sateriale 2013). This categorizes 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’

⁶ 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

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

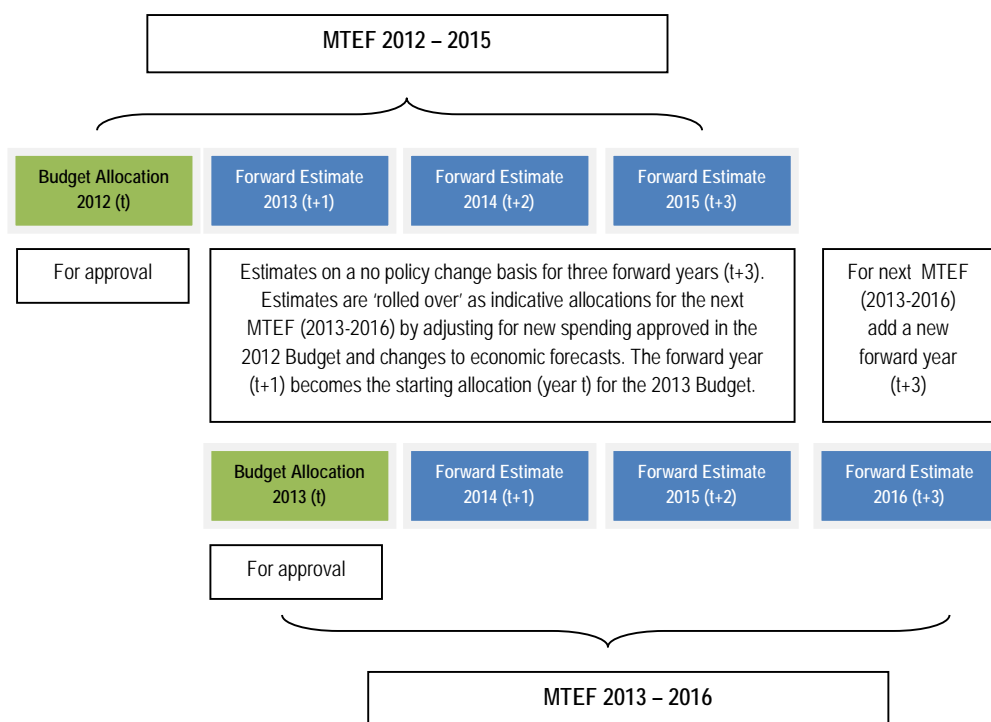
Whilst there is no ‘typical’ MTEF, it is instructive to briefly describe how a medium term framework can be integrated with the annual budget process and how it can support a more strategic approach to budget preparation. This can be explained using the mechanism of ‘rolling baselines’ and the concept 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’ basis⁷ – 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 the performance of programs, the medium term estimates are designed to make annual budget decisions more strategic.

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 finalized, 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.

⁷ Forward estimates of spending prepared under the assumption that laws, policies, behavioural and economic assumptions in the baseline program cost calculation remain in place

Figure 1: A ‘rolling’ MTEF and the annual budget process⁸



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 space’ (Schick 2009).⁹ 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 reprioritizing 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).

⁸ Diagram adapted from Overseas Development Institute (2003).

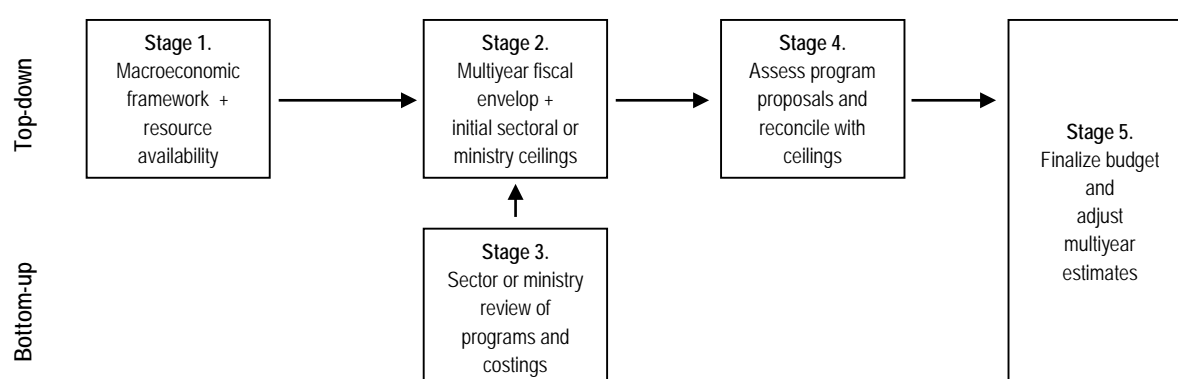
⁹ The concept of ‘fiscal space’ is used here specifically to illustrate the interaction between ceilings and baselines in the rolling estimates mechanism. It can, however, be defined in broader macro-prudential terms, for example as a ‘government’s ability to undertake spending without impairing its solvency, that is, without impairing its present and future ability to service its debt’ (World Bank 2006, 14).

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 finalized 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 – 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 process¹⁰



¹⁰ Diagram adapted from Overseas Development Institute (2003) and Dorotinsky (2006).

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, 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 and require spending ministries within the budget process to apply more specific costing methodologies when preparing cost estimates for new – or expanded existing – 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 an 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 PFM reform over the last 25 years. In large part, this can be attributed to the general focus of these 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 costs¹¹ and indirect costs.¹² 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 an MTEF should be constructed on the basis of estimating the actual cost of existing programs, rather than taking historical levels of expenditures as a starting point and mechanistically escalating for changes

¹¹ 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

¹² 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

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 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.

3.1 Institutional, policy and legal arrangements

In three of the survey jurisdictions, the MTEF is implemented through administrative policy and/or convention.¹³ In Australia and Canada, 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, the budget process is specified in basic legislation (and bounded by statutory adoption of European Union fiscal rules); however, key aspects of 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. 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

	Australia	Austria	Canada	The Netherlands
Legal and/or policy basis?	Policy + Principles-based law (<i>Charter of</i>	Legal	Policy	Policy Coalition Agreement (CA)

¹³ That is, the MTEF is not mandated in legislation, but instead based on either directions from the Finance Ministry or generally accepted practices.

	<i>Budget Honesty Act 1998)</i>	<i>Federal Organic Budget Act 2009</i>		
Integrated with the annual budget process?	Yes High integration	Yes High integration	Yes High Integration	Yes High Integration
What is the timeframe covered?	Four years (Budget + three outyears)	Four years (t+1 to t+4)	Three years Annual Reference Level Update (ARLU) is Budget + two years Budget papers report new initiatives separately	Four years + 1 (Annual budget within 4 year expenditure limits set out in CA + extrapolation year)
Are forward years on a no-policy change basis? How defined?	Yes Forward years exclude new policy, but include forecasts of economic and non-economic parameters, which are the basis for costing existing policies	No Forward years expenditure ceilings have two components: 75% fixed nominal and 25% variable	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	Yes Forward years expenditure ceilings are 'real'
How are forward years reported?	Ministerial portfolios and programs	Headings (sectors) and chapters (ministries)	Departments and programs	Chapters (ministries) and articles (programs)
Are estimates determined by the Finance Ministry?	Yes Finance approval process for ministry updates	Yes BMF (Austrian Ministry of Finance) prepares estimates in consultation with ministries	Yes TBS (Treasury Board Secretariat) determines ARLU in consultation with departments	Yes CA sets budget totals Finance manages a 'trade-off' system within the totals
How often are forward year projections updated?	Three times a year: - Budget - Midyear outlook - ERC consideration	Nominal 'heading' expenditure ceilings for four years: revised only as necessary and require parliamentary approval	Annual Also, in-year update of Economic and Fiscal Projections (Oct-Nov)	Four times a year: Most important are Spring and Budget Day Independent Central Policy Bureau provides economic parameters
Does the framework distinguish existing and new programs?	Yes Budget papers disclose all new policy decisions (referred to as 'measures', which are specific initiatives that	No	Yes ARLU adjusts existing spending; Separate new initiatives process; Budget papers report new	Yes Annual Budget process identifies new spending initiatives which can only be funded from changes to existing spend

	contribute to programs)		initiatives separately	
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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, 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.

3.2 Scope of forward estimates

The MTEF planning horizon varies between jurisdictions, and is dependent on the type of MTEF (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 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. 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, 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 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 standardization 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.¹⁴ In Canada, the estimates are presented on the basis of 'types of expenditure (e.g. operating or capital)', 'organizations' and 'strategic outcomes and programs': in 2013 there were 135 organizations 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 organized around 'chapters' and 'articles': in 2013 there were 21 chapters and around 130 articles.

3.3 Elements of the forward estimates

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. 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 the ARLU in consultation

¹⁴ 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.

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.¹⁵ In addition, because aggregate expenditure ceilings are determined by the government the role of finance ministries is increasingly directed at managing a ‘trade-off’ system’ within the 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, in preparation for cabinet-level review of new spending proposals, and as part of finalization 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 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.

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 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 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 case studies and to help differentiate mandated arrangements

¹⁵ Noting that in Austria these arrangements apply only to the variable component of expenditure ceilings.

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 and to identify instructive examples of costing methods and their application. Table 4.1 sets out the program costing practices. Program specification and costing guidelines were not available in the cases of Austria and the Netherlands.

4.1 Requirements and guidance for program specification

As previously noted, all jurisdictions use a programmatic structure for the budget estimates; however, program specification and their level of disaggregation and standardization 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 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).
- 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 organizational 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

	Australia	Austria	Canada	The Netherlands
Does the finance ministry issue program guidelines? Are they mandatory?	Yes Programs Policy and Approvals Process Mandatory	No	Yes Policy on Management, Resources and Results Structures (PMRRS) and Program Alignment Architecture (PAA) Not mandatory	Not specified
Is a program defined? Does the finance ministry issue program specification guidelines?	Yes Guidance for the Preparation of Portfolio Budget Statements (annually)	No Budget is organised on ‘chapter’ basis, with each chapter specifying up to 5 outcomes	Yes PMRSS and PAA	Yes Accountable Budgeting Reform: Budget is organised on ‘chapter’ basis, with each chapter comprising ‘policy’ and ‘non policy’ articles
What is the purpose of costing information?	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	To provide ‘implicit’ support for the outcome oriented impact assessment process	Determined by ‘purpose’: - cost recovery - make-or-buy decisions - level-of-service decisions - cost-benefit decisions - costing of a new initiative (incremental funding)	Not specified
Does the finance ministry issue guidelines on program costing? Are they mandatory?	Yes Not mandatory but ‘conventional costing template’ must be used for staffing and ‘on-costs’ (such as pensions and other benefits)	No	Yes Guide to Costing (2008) Not mandatory TBS Submission Guide mandatory (for submission of new spending initiatives)	Not specified

What methodologies do costing guidelines cover?	Differentiated for: - Departmental Items (conventional costing template [Cost = Quantity x Price] + wage index) - Administered Items (policy assumptions, key cost drivers, large model methods – covers direct behavioral effects only)	Not specified	Range of methods - Causal relationships - Cost pools - Standard costs and fixed percentages	Not specified
How do program costing guidelines treat indirect costs / fixed (capital) costs?	Not specified Note that new policy proposals for capital works require a ‘whole-of-life’ cost-benefit analysis (see Part 5)	Not specified	General guidance on allocating indirect costs, especially use of ‘cost pools’	Not specified
Do program costing guidelines cover all programs or new programs only?	New spending only (new programs or changes to existing programs)	Not specified	New spending only (TBS Submission for new initiatives or spending outside the agency’s reference levels)	Not specified
Accrual or cash budgeting (revenues and expenditures)?	Accrual	Accrual and cash	Accrual and cash	Accrual and cash

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.

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 is 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.

4.2 Requirements and guidance for program costing

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. 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’. 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). While the Guide is not mandatory, it emphasizes that ‘costing is done for the purpose intended’ and therefore that specific costing exercises should be formulated by utilizing 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.

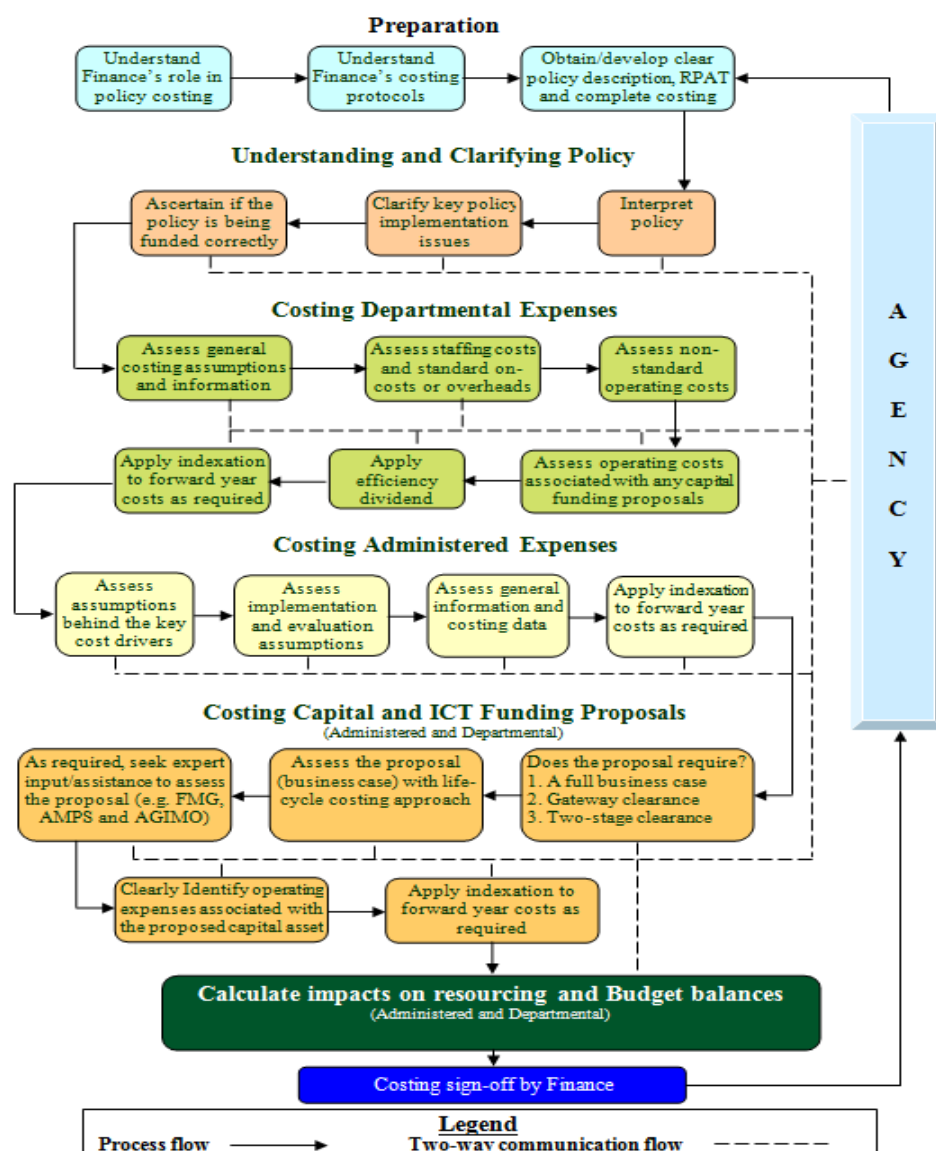
The second set of guidelines relate specifically to the preparation of Treasury Board Submissions. These are ministerial policy submissions seeking approval from the Treasury Board to fund new initiatives that are not included in a department’s expenditure reference levels (forward estimates). They provide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

4.3 Methodologies and coverage of program costing

The costing guidelines in Australia and Canada, while mandatory in their application to new budget proposals, set out a range of methods and practices to standardize approaches. 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. The four elements are set out in the costing process map in Exhibit 2.

Exhibit 2. Costing Process Map – Australian Department of Finance^{16, 17}



¹⁶ Source: Australian Department of Finance and Deregulation 2013.

¹⁷ 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 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 (the program expenses that a department administers on behalf of government). The 'standardized 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 behavior 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, 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 behavioral responses (or first round effects), but will generally not incorporate second round effects.
- The assumptions used in costings should be transparent and, to maintain consistency, assumptions used in one policy costing will generally be used again for costing similar policies.

Similar to the Australian approach, the Canadian *Guide to Costing* is based on commonly accepted 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* emphasizes that ‘costing is done for the purpose intended’ and therefore that specific costing exercises should be formulated by utilizing 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 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).¹⁸ Exhibit 4 is the template for this standard table and Exhibit 5 outlines the range of costs that should normally be considered in constructing cost schedules.

Calculated on a cash accounting basis, Exhibit 4 illustrates how at the organizational level total costs are itemized 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

¹⁸ 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.

‘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’.

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						
	2013–14	2014–15	2015–16	2016–17	2017–18	Total	Ongoing
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 EBP amount, if any)							
Total New Funding							
Existing Funding [Provide a breakdown by organization, vote and input factor, as applicable. Use the same format as the “New Funding” section.]							
Total Existing Funding							
Transfers							
Sending Organization [Provide breakdown by vote and input factor. Use same format as the “New Funding” section.]							
Subtotal							
Receiving Organization [Provide breakdown by vote and input factor. Use same format as the “New Funding” section.]							
Subtotal							
Total Transfers (must equal zero)							
Grand Total							

Source: Treasury Board of Canada Secretariat 2014

Exhibit 5. Checklist of possible costs

Salary and related costs	Salaries, wages, shift premiums, overtime allowances, acting pay, reclassifications, bilingual bonuses, relocation, leave, employee benefit plan (pension and insurance) payments
Accommodation costs	Accommodation charges for government owned or leased properties
Other operating	Travel, conferences, freight, postage, training, contracted personal and professional services, communications, information and telecommunications systems, computing hardware and software, furniture, office supplies, internal professional services such as legal counsel, auditors, corporate services such as library and mail room
Capital	Acquisition of land, construction of buildings, engineering structures and works, car fleets, ships and planes, and major alterations, repairs or renovations to extend the life of these assets
GST	Whilst not charged to a department’s operating budget, the GST (and state sales tax harmonization payments) must be estimated and shown separately in proposals seeking new funding
Transfer payments	Estimates of money, goods, services or assets that are transferred from an appropriation to individuals, organizations or other levels of government, including conditional transfer payments such as grants

Source: Treasury Board of Canada Secretariat 2007, 63-4.

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 6 illustrates a costing process for the annual accrual expenses of a capital asset acquisition proposal.

Exhibit 6. 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.

Source: Treasury Board of Canada Secretariat 2007, 66-67.

5. MTEF budget and forward year cost estimates practices

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 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. Again, it must be noted that information on costing and forecasting methodologies was generally not available in the cases of Austria and the Netherlands.

5.1 Application of costing guidelines over the budget and forward years

All four jurisdictions have an MTEF that makes use of rolling estimates. The key distinction is between Australia and Canada (which utilize ‘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 finalized, 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 organized around reprioritization 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, 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 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

	Australia	Austria	Canada	The Netherlands
Is the MTEF ‘rolling’?	Yes t + 1 becomes starting point for budget, new t + 3 added	Yes 4 year budget ceiling New MTEF has t + 4 added, with t + 3 as starting point	Yes t + 1 becomes starting point for budget, new t + 2 added	Yes 4 year budget ceiling New MTEF has t + 4 added, with t + 3 as starting point
Are there central guidelines for program costings for budget proposals? What is the basis for proposals, i.e. program, sectoral etc.	Yes Standardized Costing Model for New Policy Proposals Program and/or ‘measure’ (initiative related to a program)	No RIA (Regulatory Impact Assessment) new proposals but not cost specific Proposals are not ‘program’ based but law or project based	Yes Costing Guide and Guide to Preparing Treasury Board Submissions ‘New Initiative’	No data
Is there a distinction between recurrent and capital? Do the latter estimate recurrent costs of capital expenditure?	Yes Separate appropriations NPPs identify recurrent and capital separately Capital proposals estimate ‘whole-of-life’ costs	No distinction between capital and recurrent	Yes No data	No data
Do guidelines treat entitlement	No	Yes	No	No data

programs differently?	Entitlement programs specified by separate legislation – ‘special appropriations’	MTEF distinguishes ‘nominal’ fixed ceiling (75%) and ‘variable’ ceiling (25%) for entitlement activities	‘Statutory’ programs	
Are there separate guidelines estimating program costs over the budget and forward years? Is this applied by centre, agencies or both?	No Standardised costing methods that apply to budget and forward years	No RIA is required for all new laws and projects; however, ‘not directly linked to MTEF or the annual budget’	No Standardised costing methods that apply to budget and forward years	No data
What are the key components of the forecasting methodologies - economic parameters - estimate construction rules (‘no policy change’) - cost escalation factors	Construction rules (‘no policy change’ basis) Treasury Economic Forecasts (e.g. annual growth) are <i>forecasts</i> for budget year and outyear 1 (cyclical variation in economic activity) and <i>projections</i> for outyears 2 and 3 (long term averages)	Not elaborated Economic forecasts provided by independent body (WIFO)	No data	No data
Do forecasting methodologies differentiate between policy and parameter changes?	Yes Budget measures – new or changed policy Parameter changes – variations to economic parameters	No RIA requirements apply to new spending only	No data	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).

5.2 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 labor and non-labor deflators, demographic and behavioral assumptions etc.) and ‘parameter changes’¹⁹ 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 characterized 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: behavioral 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 behavior 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 behavioral change. Often, reliable information on these types of policy change effects are often unavailable, and while behavioral 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 behavioral assumptions are used and the confidence intervals applied (including one of no behavioral change due to lack of information).

A related issue is that costings should only take into account the direct behavioral 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

¹⁹ A parameter change is a variation to either a non-economic parameter (such 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).

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 recognizes 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 realize 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 has distinctive institutional arrangements for economic forecasting that help to characterize 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, labor 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

The aim of this paper 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 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 emphasize 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.

6.1 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. 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. 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 categorize spending at relatively high sectoral and ministry levels and place a premium on spending ministries reprioritizing resources within the ceiling.

6.2 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 ‘reprioritization’ 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.

6.3 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 utilize cost information for both purposes. Highly aggregated budget categories – and highly decentralized 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.

6.4 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 labor and non-labor costs, average labor 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 behavioral 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.

6.5 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.

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