

# Medium-Term Budget Frameworks in Advanced Economies: Objectives, Design, and Performance

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Budgeting in most countries focuses on preparing an annual plan for revenue and expenditure, but an understanding of fiscal developments beyond this relatively short time horizon is important for the ability to make the right choices. Budget decisions made today generally have consequences for several years to come, and events expected to occur in two or three years time may call for action today. This realization has prompted many countries to introduce medium-term budget frameworks (MTBFs).

An MTBF is a set of institutional arrangements for prioritizing, presenting, and managing revenue and expenditure in a multiyear perspective. Such a framework enables governments to demonstrate the impact of current and proposed policies over the course of several years, signal or set future budget priorities, and ultimately achieve better control of public expenditure. An MTBF, therefore, does not refer solely to the actual numerical multiyear revenue and expenditure projections and restrictions presented alongside a given budget. Rather, an MTBF comprises 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.

MTBFs typically constitute part of a wider set of frameworks for medium-term fiscal policy planning, which are described in Box 4.1. Although an MTBF is not the same as a multiannual budget in which appropriations are authorized for a period longer than one year, in its most binding form it does provide a set of constraints on future budgets, against which any changes are reconciled. However, an MTBF is consistent with maintaining annual budgets. Therefore, even though MTBFs provide an administrative mechanism for multiyear planning of expenditure, the time horizon for the legislative appropriation of expenditure remains strictly annual in all countries considered in this chapter.

There is no single MTBF model, but rather a range of country approaches to extending the budget horizon beyond the year ahead. Indeed, any country

### BOX 4.1 MTBF Terms and Concepts

*Medium-term budget framework (MTBF)*—institutional arrangements in the budget process governing the requirement to present certain medium-term financial information at specific times, procedures for making multiyear forecasts and plans for revenue and expenditure, and obligations to set numerical expenditure limits beyond the annual budget horizon.

*Medium-term fiscal framework*—standing requirements to commit to, report against, and be held accountable for medium-term aggregate fiscal objectives, such as debt limits, surplus targets or deficit ceilings, or broad expenditure limits. For the purpose of this chapter, expenditure ceilings are considered part of the MTBF if they cover all or a subset of *central government*.

*Binding framework*—a framework that holds government accountable for the multiyear expenditure parameters (estimates or ceilings) set in year  $t - 1$  or earlier, when, in year  $t$ , the budget for  $t + 1$  and new medium-term estimates for  $t + 2$  and  $t + 3$  are set. Accountability means that some active measure or action is required if there is evidence that the previously set expenditure parameter is going to be exceeded. A *fixed framework* is a subset of binding frameworks in which medium-term expenditure limits are set, but are not subsequently revised.

*Indicative framework*—a framework in which updates of medium-term estimates can be made without reference to the same estimate set in the previous year, and in which the appropriations in government's annual budget proposal for  $t + 1$  are not reconciled against the medium-term estimates for  $t + 2$  made in the previous year (or previous budget update, e.g., prebudget report).

*Appropriation*—maximum limits for individual expenditure items as defined in the budget. In this chapter, appropriations refer both to the expenditure limits set in the budget as adopted by parliament and to any sublimits imposed by government on ministries and agencies.

*Estimate*—an assessment of the expected outturn of a revenue or expenditure item. In the chapter, "estimate" is used as a collective term for *forecasts* and *no-policy-change assessments*, for which the distinction between these concepts is unimportant. (In some countries, the term "estimate" is used to refer to the legislated appropriations in the budget.)

*Forecast or projection*—an assessment of the most likely outturn, taking into account all available information. "Forecast" and "projection" are used interchangeably, with no conceptual difference between the two.

*No-policy-change assessment*—extrapolation into the future of a revenue or expenditure item under the assumption that today's policies are kept unchanged. The definition of current policy differs between countries, with some countries emphasizing an extrapolation of *existing legislation* whereas others also incorporate policies that have been proposed to parliament but that have not yet been formally adopted.

*Expenditure ceiling*—a maximum limit on an aggregate of expenditure that is broader than an individual appropriation. A *fixed ceiling* refers to a limit that is not revised upward once it has been set, and applies to the ex post expenditure outturn. A *flexible ceiling* is a limit that can be revised upward after it has been set.

that produces some kind of revenue and expenditure projections alongside its annual budgets can be said to practice a simple form of medium-term budgeting. At the same time, as more and more countries introduce a multiyear orientation to budget planning, some approaches have proved to be more successful than others.

This chapter, therefore, not only examines whether MTBFs in general improve a government's financial performance, but also assesses the relative performance of different kinds of MTBFs to identify the key characteristics of successful frameworks. It concentrates on advanced economies, which have similar levels of financial management capacity and relatively extensive experience with medium-term budget planning.

The first section explores the objectives of MTBFs. The second section identifies the main models found in advanced economies. The third section discusses the preconditions for developing a successful MTBF. The fourth section discusses common key features and design elements of advanced frameworks. The fifth section evaluates the performance of different MTBF models since the early 2000s, including how they were adjusted during and after the 2008–09 economic and fiscal crisis to help implement both fiscal stimulus and consolidation. The conclusion provides a set of lessons for countries looking to introduce or strengthen medium-term budget planning.

## **4.1. OBJECTIVES OF A MEDIUM-TERM BUDGET FRAMEWORK**

Countries introduce MTBFs for a number of reasons. Looking beyond the annual budget cycle can improve public financial management outcomes by

- ensuring better control over the evolution of the aggregate fiscal position,
- promoting a more effective allocation of expenditure between sectors and priorities, and
- encouraging more efficient use of resources by budget managers.

These objectives are, to some extent, mutually reinforcing. Strengthening the emphasis on achieving sustainable public finances creates incentives to prioritize policies so that the most important ones receive funding. Producing detailed multiannual budget scenarios improves the administration's understanding of the cost drivers in different sectors and of the resource requirements of different policies, enabling government to set more credible multiyear ministerial expenditure plans, which, in turn, enable ministries to plan their activities in a more efficient way. The remainder of this section examines how effective MTBFs contribute to the realization of each of these objectives.

### **4.1.1. Strengthening the Sustainability of Public Finances**

The principal motivation for adopting an MTBF in most advanced economies has been the desire to strengthen multiyear fiscal discipline. MTBFs accomplish this strengthening by combating tendencies for the expenditure level to rise incrementally over time and the fiscal balance to come in lower than

government intended.<sup>1</sup> An MTBF can help improve fiscal discipline in three ways:

- by exposing to government and parliament the full multiyear fiscal impact of *a new policy* before it has been adopted, thereby avoiding unpleasant surprises down the road;
- by giving government an early warning about the sustainability of *existing policies* and encouraging it to take corrective action in advance where necessary; and
- by establishing binding *multiyear expenditure limits* that contain the total room for expenditure in subsequent budgets.

Projecting medium-term expenditure dynamics allows government to take into account both the short- and medium-term fiscal impacts when deciding on new policies. In many cases, the budget impact of revenue or expenditure policies does not follow a smooth pattern from year to year. For example, the number of eligible individuals for a new entitlement program increases over time, the largest construction costs of an infrastructure investment project start a few years into the project, or an increase in civil servants' wages is introduced halfway through the fiscal year. Presenting decision makers with a multiyear profile provides a better chance that only affordable policies will be approved.<sup>2</sup> Conversely, within a strictly annual budgeting horizon, policy changes that generate significant savings over time might be ignored, simply because their short-term impact is small. For example, closing down a redundant agency often generates limited savings in the first year because existing contracts have to be honored and redundancy payments have to be made. However, the savings over several years can be significant.

A well-designed MTBF can also alert government to adverse developments related to ongoing policies, allowing it to initiate adjustment well in advance. For example, medium-term projections can expose how an indexation mechanism for public sector wages, pensions, or unemployment benefits that might appear affordable today is actually unsustainable over the medium to long term. By identifying the problem and providing incentives to make policy changes today, MTBFs can help policymakers initiate early adjustments that have large impacts over time, rather than waiting until the policy becomes unaffordable, forcing large and disruptive changes later.

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<sup>1</sup>These phenomena are often referred to as *deficit bias* or *fiscal illusion*, as discussed elsewhere in this book. This can be traced to incomplete knowledge about the full costs of spending and taxation, as well as the asymmetric nature of this incompleteness. The channels through which these deficiencies translate into public decision making have been thoroughly studied in the academic literature (Buchanan and Wagner, 1977; Weingast, Shepsle, and Johnsen, 1981; Roubini and Sachs, 1989; Alesina and Perotti, 1994; von Hagen and Hallerberg, 1999).

<sup>2</sup>Several studies have found that time horizons in public decision making are inherently short, either because of uncertainties of being reelected (Nordhaus, 1975; Persson and Svensson, 1989; Alesina and Tabellini, 1990) or because of a lack of information about medium- to long-term effects (Rogoff, 1990; Coate and Morris, 1999).

The sustainability of public finances can also be further enhanced if binding limits are placed on expenditure in the medium term. Such expenditure limits establish benchmarks against which multiyear estimates can be compared, thereby providing information on whether government's current policies are consistent with its aggregate fiscal objectives. Having an established limit on expenditure going into the preparation of the next budget also helps to contain bottom-up pressures for unaffordable increases in allocations. Finally, reaching agreement on stringent spending limits a few years before the budget is negotiated is typically easier than attempting to set such limits in conjunction with the prioritization of expenditure between different policy objectives.

#### 4.1.2. Promoting More Effective Allocation of Resources

An MTBF can also help promote more effective allocation of resources by facilitating reallocations of expenditure from lower priority to higher priority areas. An MTBF opens up several channels for reallocation:

- A medium-term outlook in budgeting gives government an instrument for ensuring that policies are implemented *at the right time*. Improving timing also involves the ability to identify problems around the corner and to take timely action so that the impact comes when needed, not a year or two afterward.
- A medium-term perspective enables *more ambitious reallocation* of resources by removing many of the administrative and legal rigidities that apply in a one-year perspective but that are more malleable over a two- or three-year horizon.
- A medium-term budget framework allows government to *announce policy changes now that will be implemented later*. Doing so helps to set expectations and avoid the strong bias for the status quo that tends to otherwise prevail.

By identifying future policy issues early, MTBFs can take into account the time lags that characterize many policy changes. Significant policies often take a number of years to design, legislate, and implement before rendering the desired effect. A one-year horizon poses the risk that the impact of the policy changes will be felt only several years after the time intended by government. In contrast, an MTBF encourages government to anticipate policy lags and to initiate reforms that will come into effect only after two or three years.

In many cases, however, the problem is not so much identification and implementation lags as short-term rigidities preventing expenditure from being reduced. This occurrence is sometimes reflected in the distinction between discretionary and nondiscretionary expenditure that some countries have institutionalized in their budget systems. Although the vast majority of expenditure—through legal contracts, existing legislation, or simple administrative or political inertia—cannot be reduced in the short term, a planning period of two or three years opens up substantially more opportunities for reducing, or even shutting down, programs that have become obsolete or downgraded in the list of government priorities, and using those resources to fund new or higher priorities.

Giving advance warning of a future change in a ministry's resources budget can also help to manage expectations and help budget managers to prepare for the forthcoming increase or cut in resources. Advance warning can alleviate some of the resistance typically met when a budget reduction is proposed. The added time dimensions in the budget negotiations can also help government deal with excessive proposals for new spending. With a strictly annual budget horizon, a particular proposal can be met only with a binary yes or no. A medium-term horizon provides the option of committing to introducing the proposal in a future budget if sufficient fiscal space is available. The flip side, of course, is the temptation to fill all the years in the planning horizon with new policies, leaving no room for launching new initiatives at a later stage.

### 4.1.3. Encouraging More Efficient Use of Resources

A well-functioning MTBF can promote more efficient use of resources by creating more stable and predictable conditions under which ministries and agencies can plan their expenditures. These efficiency improvements arise through three different channels:

- More-predictable future budget allocations *promote multiyear planning* and create opportunities to negotiate better contracts, mitigate risks, and exploit synergies.
- Relaxing the strict annularity of budget authorizations allows budget managers to *spend resources as needed* or when they are most effective rather than rushing spending through at the end of the financial year using arrangements for carryover of unspent appropriations.
- Greater certainty about future allocations creates incentives for budget managers to *identify and exploit efficiency savings*.

Although official spending authorizations remain annual, an MTBF can enable governments to give clearer commitments to ministries and agencies about their budget allocations for the medium term. Budget actors are therefore in a better position to plan their activities. As discussed in Chapter 10, the efficiency of infrastructure investment can be increased by providing budget actors with more time to design projects, negotiate contracts, identify and manage risks, and exploit synergies between different interventions. However, efficiency gains can also be made on the current side of the budget through recruitment of skilled professionals, training of existing staff, execution of long-term procurement contracts, and administrative reorganization if budget actors are in a position to commit resources for more than one year.

A multiyear planning horizon also allows government to relax some of the strict annual limits on ministerial and agency expenditure, which can otherwise encourage inefficient use of resources. The combination of multiyear budget planning and carryover arrangements, whereby unused budget authorizations are automatically shifted to top up the next year's budget, can improve cost efficiency by removing the incentive for end-of-year spending surges.

Providing budget managers with greater multiyear budgetary certainty can also encourage them to identify and implement measures that yield efficiency savings without fear of having those savings revoked from their budgets in the next budget round. Of course, a trade-off arises between encouraging these kinds of operational efficiencies within a sector and exploiting opportunities to reallocate those savings to higher-priority sectors.

## 4.2. MEDIUM-TERM BUDGET FRAMEWORK MODELS

A country does not have an entirely free hand in designing a coherent MTBF. Rather, in choosing an MTBF model, countries face tension between the three objectives of medium-term budget planning discussed in the first section of this chapter:

- Maintaining *aggregate expenditure discipline* requires that the medium-term restrictions have the broadest possible *coverage* of government expenditure.
- Promoting more *effective allocation of resources* requires that decision makers be provided with *detail* about the future allocation of resources between sectoral, administrative, or program categories.
- Encouraging the *efficient use of resources* requires that budget managers be provided with *certainty* about their future allocations.

The tension between these objectives arises because the future demands on government are inherently uncertain. All governments find it difficult to commit themselves credibly to a comprehensive and detailed multiyear expenditure plan. Although a well-designed MTBF reduces uncertainty about future spending requirements, unforeseen pressures will inevitably arise. These pressures will have to be accommodated by increasing total expenditure, revising the allocation of expenditure, or leaving a large proportion of expenditure unallocated over the plan period, or through a combination of these measures.

This tension between competing objectives is reflected in the design of different MTBF models. Across the 24 advanced economies considered in this chapter, three broad approaches to medium-term budget planning can be identified.

Six countries can be described as having *no MTBF*. No multiyear expenditure and revenue estimates are presented alongside and on the same basis as the annual budget. These countries may produce aggregate fiscal or budgetary projections (such as required by stability or convergence programs); however, these documents are not integral to the budget documentation and do not constitute an ex ante framework for budget preparation.

An *indicative MTBF* is used by 11 countries. The multiyear expenditure and revenue estimates presented with the annual budget are intended to reflect the future costs of current policies and decisions but are not intended to bind future policies and decisions. These medium-term revenue and expenditure estimates are reset every year, without any reconciliation with the estimates presented in the previous year. Because they can be revised without any consequence,

indicative frameworks are often comprehensive in their coverage and provide considerable detail about the composition of expenditure by economic, administrative, or program category. However, they provide relatively little certainty about future expenditure at either the aggregate or the detailed level.

Seven countries can be described as having a *binding MTBF*. The multiyear expenditure and revenue estimates presented with the annual budget are intended to both reflect the future costs of current policies and bind future policy changes. However, as discussed below, the nature, categorization, level of detail, coverage, and frequency of policy revisions of the medium-term commitment vary substantially across countries.

Binding MTBFs can be further subdivided into three distinct models based on the point at which they strike the balance between the three objectives highlighted above.

The *fixed aggregate ceiling* approach currently used by Austria, Finland, the Netherlands, and Sweden fixes a binding limit on all or most central government expenditure for two or more years, and is not revised during that period. Given the primacy attached to ensuring that this aggregate ceiling is respected, these models do not set binding multiyear limits on expenditure categories within the overall ceiling but leave this to the discretion of the annual budgeting process.<sup>3</sup> As such, this type of model is characterized by a higher degree of comprehensiveness and control at the aggregate level, but maintaining flexibility to revise and reallocate at the more detailed level.

The *fixed ministerial ceiling* approach currently employed by France and the United Kingdom fixes binding multiyear expenditure limits for each of the 25–30 central government line ministries. Given the challenges and risks associated with fixing expenditure allocation at this more detailed level, these models tend to revise the ceilings more frequently and cover less central government expenditure. Thus, this type of model is characterized by a high degree of fixity and specificity but a lower degree of comprehensiveness.

The *forward estimates* approach employed by Australia sets multiyear expenditure estimates for each of the central government's 217 programs (or outcomes, as they are described in the budget). Unlike in the fixed ministerial ceiling model, these estimates are subject to revision twice a year. However, revisions are permitted only (1) to realign budget allocations to recognized changes in external parameters, such as a change in inflation or a change in underlying program volumes, or (2) to reflect discretionary policy decisions approved by the cabinet. In the absence of any approved changes, the previous years' estimates remain and eventually become the budget appropriation. Thus, this type of model allows for a high degree of comprehensiveness and specificity, focuses on policy delivery, and

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<sup>3</sup>This is not to say that countries with aggregate expenditure ceilings do not place any emphasis on policymaking, forecasting, and control of expenditure at a more detailed level. As discussed in the last section of this chapter, the integrity of the aggregate ceiling depends upon these countries having well-developed procedures for prioritizing and monitoring expenditure at the ministerial and program levels in a medium-term horizon.



TABLE 4.1

Highest Tier of Multiyear Planning	Status of Multiyear Estimates		
	Binding	Indicative	None
Aggregate expenditure	Austria (post-2010) Finland (post-2003) Netherlands Sweden	France (pre-2009) Italy Czech Republic	Greece Iceland Ireland Poland
Economic category		Belgium Germany Hungary Japan Turkey	Portugal Spain
Ministry	France (post-2009) United Kingdom	Austria (pre-2010) Canada Denmark Slovak Republic Finland (pre-2003)	
Program	Australia	New Zealand	

Source: Authors' illustration.

Note: MTBF = medium-term budget framework; OECD = Organisation for Economic Co-operation and Development.

opens up the possibility for revisions and reallocations within both expenditure areas and the aggregate amount. However, the lack of a fixed ceiling leads to a lower degree of certainty about total expenditure.

See Table 4.1 for an illustration of how MTBF models are used in the Organisation for Economic Co-operation and Development (OECD) countries. Indicative MTBFs remain the most common model, but a growing number of advanced economies are adopting more binding approaches. Although Australia has been refining its forward estimates model since the 1980s, most other binding MTBF models were adopted within the last two decades: in the Netherlands in 1994, in Sweden in 1997, in Finland in 2003, in France in 2008, and in Austria in 2009. The United Kingdom has experimented with three different approaches to medium-term budget planning during the past three decades, as discussed in Box 4.2.<sup>4</sup>

### 4.3. PRECONDITIONS FOR A SUCCESSFUL MEDIUM-TERM BUDGET FRAMEWORK

Although more and more countries have adopted MTBFs, their performance against the various objectives set for them has been mixed. One reason for this mixed performance record is that medium-term budgeting is demanding and

<sup>4</sup> See Ahnert, Hughes, and Takahashi (2011) for a more detailed description of the United Kingdom's various approaches to medium-term budget planning since the 1960s.

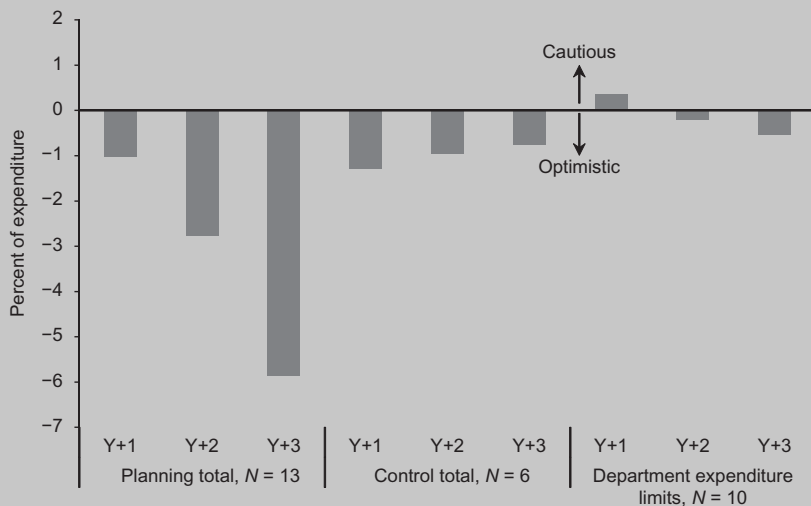
### BOX 4.2 MTBFs in the United Kingdom

The experience in the United Kingdom provides an interesting test of medium-term budget frameworks (MTBFs). The country has operated three distinct models over the past three decades, within the same broad institutional structure:

- From 1967 to 1993, the government had an indicative MTBF based on a rolling three-year aggregate expenditure ceiling known as “Planning Total.” Planning Total covered all general government expenditure other than debt interest and was revised on an annual basis.
- From 1994 to 1998, the government moved to a binding MTBF based upon a fixed aggregate expenditure ceiling known as “Control Total.” Unlike Planning Total, Control Total was fixed for periods of three years and was not revisited. This additional degree of discipline came at the expense of coverage because working-age benefits were added to the list of items excluded from the ceiling.
- From 1999 to the present, the government has operated a system of fixed ministerial ceilings known as “Departmental Expenditure Limits.” Under this approach, multiyear ceilings are fixed for each of 25 central government ministries and are not revised for a period of two to three years. This additional degree of specificity came at the expense of a further reduction in coverage because local authority self-financed expenditure and all social security benefits were excluded from the ceiling.

#### Securing Medium-Term Sustainability of Public Finances

The evidence from the U.K. experience with different MTBF models confirms the finding that binding MTBFs can be more effective in promoting fiscal discipline than indicative MTBFs (see Figure 4.2.1). The move from an indicative aggregate to a fixed aggregate ceiling was associated with a major improvement in aggregate expenditure discipline as measured by the average error in forecasting general government expenditure three years ahead, which fell from 5.9 percent to 0.8 percent of GDP. The move from a fixed aggregate ceiling to fixed ministerial ceilings was associated with a further improvement in expenditure discipline with the average three-year-ahead forecasting error falling to 0.05 percent of GDP.



**Figure 4.2.1** U.K. General Government Expenditure Forecast Errors, 1981–2009

Source: U.K. *Financial Statement and Budget Report*.

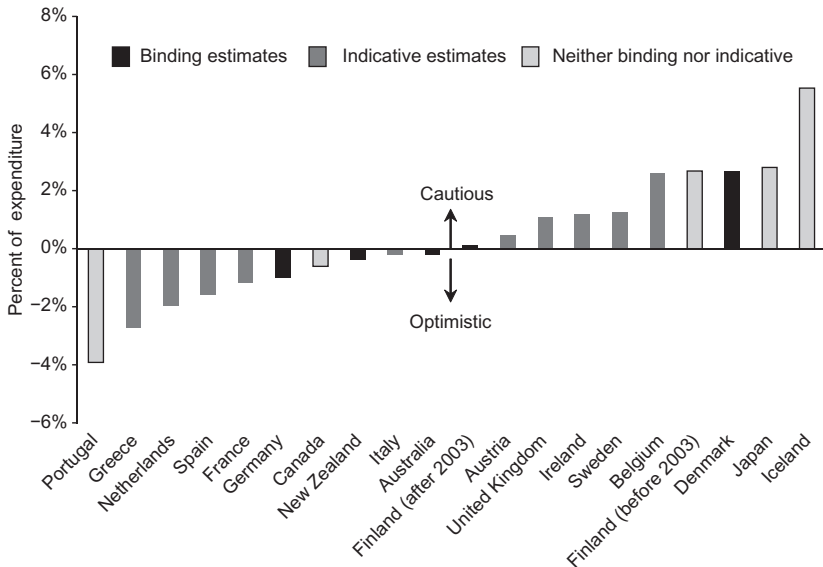
Note: N = number of observations; Y = budget year. “Cautious” means that actual expenditure was lower than forecast. “Optimistic” means that actual expenditure was higher than forecast.

requires a level of stability and predictability that typically develops only over time. Specifically, four preconditions are critical to the successful introduction of an MTBF:

- a credible and predictable annual budget;
- accurate medium-term macroeconomic and demographic projections;
- established fiscal objectives and rules; and
- a comprehensive, unified, top-down budget process.

### 4.3.1. Credible and Predictable Annual Budget

The foundation for the medium-term revenue and expenditure projections is the annual budget. Unless the short term is sufficiently predictable, the forecasting error for the medium term will be too large for the framework to serve as a basis for decision making. Figure 4.1 shows the average difference—expressed as a percentage of total expenditure—between projected general government expenditure (where possible, or central government expenditure otherwise) at the start of



**Figure 4.1** Average Difference between Planned and Actual General Government Expenditure for Forecasts Made in Previous Year, 1998–2007

Sources: EU countries: stability and convergence programs. Australia, Canada, Iceland, Japan, New Zealand: year-end budget reconciliation documents.

Note: For non-EU countries, central government figures were substituted for general government figures. “Cautious” means that actual expenditure was lower than forecast. “Optimistic” means that actual expenditure was higher than forecast.

the budget year and the final outturn for a set of OECD members in 1997–2007.<sup>5</sup> For example, in Portugal, expenditure was on average around 4 percent higher than forecast, whereas in Iceland, it was approximately 5.5 percent lower, on average, than forecast. The figure shows that for a large number of countries, substantial changes to total expenditure occur during the course of the fiscal year. It also shows that binding MTBFs tend to be in place in countries with relatively credible annual budgets. This credibility derives from a number of factors.

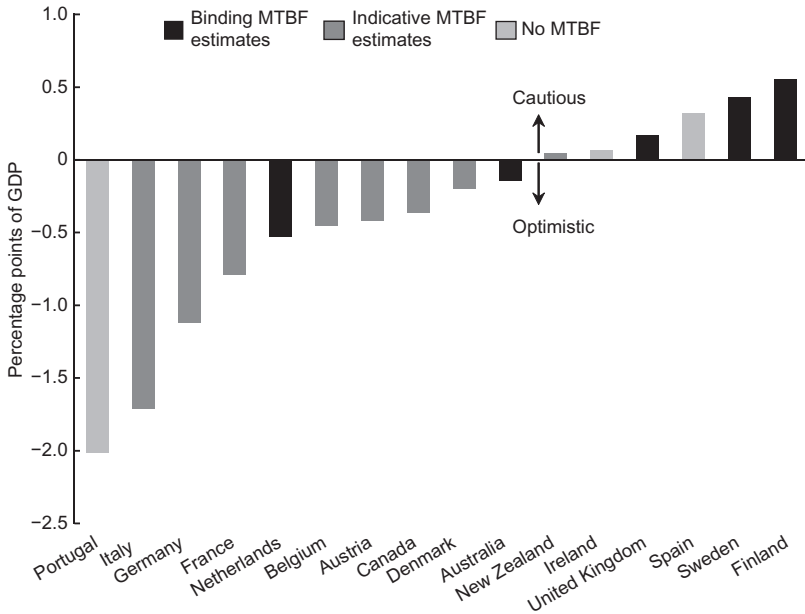
The first aspect of the credibility of the annual budget is that budget allocations need to be sufficient to fund the policy outcomes that budget actors are expected to deliver. Only when the ministry of finance and the responsible spending ministry or agency broadly agree that the budget allocation is appropriate for its purpose can a meaningful discussion of the medium-term financial requirements be held. Divergence between expectations and actual resource allocations can occur for several reasons, including a lack of clarity in the instructions given to spending ministries, unrealistic or uncosted policy expectations, insufficient understanding of production costs, or simple reluctance on the part of spending ministries and agencies to accept the restrictions imposed by the ministry of finance. Regardless of the reason, realistic allocations are necessary for the MTBF.

The second aspect is that expenditure dynamics for existing government programs and activities have to be understood. Producing accurate medium-term expenditure projections is difficult. However, standardized methods for determining future budget appropriations make it possible to remove a great deal of uncertainty. The most obvious example is entitlement schemes intended to compensate for a temporary loss of income, for example, sickness benefits, parental benefits, or unemployment benefits. The benefit levels are often indexed to inflation to maintain them in real terms. If this indexation mechanism is made explicit, medium-term forecasting is a matter of predicting volumes and inflation. Stability and predictability of the calculation of administrative appropriations, which is predominantly affected by price inflation, is also important.

A third aspect is firm control over budget execution, and an expectation that government will respect the allocations approved by the legislature. If the budget is not well prepared, if external conditions are unstable, or if control over in-year expenditure commitments is insufficient, government may have to regularly make major adjustments during the execution of the budget. In such a situation, in which the administration cannot deliver the approved annual budget, it is not feasible to expect that any medium-term planning will be taken seriously. Planning for the medium term makes sense only if the short term is stable.

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<sup>5</sup>Countries discussed in this chapter but excluded from Figure 4.1 are the Czech Republic, Hungary, Poland, the Slovak Republic, and Turkey, because there were only four years of data or fewer for these countries. This sample was classified according to the stringency of multiyear planning that each country was implementing in 2007, except in the case of Finland, which changed its medium-term expenditure framework in 2003.



**Figure 4.2** Average Error in Forecasting Real GDP Growth for Two Years Ahead, 2000–07

Sources: EU countries: stability and convergence programs. Australia, New Zealand, Canada: annually produced budget update documents.

Note: “Cautious” means that actual GDP growth was higher than forecast. “Optimistic” means that actual GDP growth was lower than forecast. MTBF = medium-term budget framework.

### 4.3.2. Accurate Medium-Term Macroeconomic and Demographic Projections

Government’s multiyear projections of revenue and expenditure are only as credible as the economic and demographic assumptions on which they are based. Just about every revenue and expenditure item in the budget is driven by some exogenous factor. Personal income tax is affected by household income and employment levels, value-added tax by consumption, unemployment benefits by the number of individuals looking for work, and the cost of completing a building project by the inflation rate for construction materials and labor costs. The precision of the MTBF can be only as high as the forecasting accuracy of these economic and noneconomic determinants. Figure 4.2 shows the average error for GDP forecasted two years in advance for a selection of OECD countries for 2000–07.<sup>6</sup> For example, in Finland, actual GDP was on average about 0.5 percent higher than forecast. The figure shows that those countries that have adopted more binding MTBFs have tended to have more cautious medium-term economic growth forecasts than those without an MTBF.

As indicated in the previous section, a very unstable macroeconomic environment—as can occur following a major economic or other shock—can make forecasting

<sup>6</sup> Countries discussed in this chapter but excluded from Figure 4.2 are the Czech Republic, Greece, Hungary, Iceland, Japan, Poland, the Slovak Republic, and Turkey, because there were insufficient years of data. This sample has been classified according to the stringency of multiyear planning that each country was implementing in 2007.

too daunting a task to realistically apply a medium-term budget framework. In many cases, however, sufficiently accurate forecasting assumptions can be established. A central factor is the use of a comprehensive macroeconomic forecasting model that ensures that inflation, exchange rates, consumption, unemployment, and the output gap are consistent with one another.

As discussed in Chapter 6, countries have improved the accuracy and prudence of their macroeconomic forecasts by seeking independent input into their formulations.<sup>7</sup> By voluntarily agreeing to independently produced forecasts, governments put pressure on themselves to eliminate possible biases and improve their internal capacity. The use of independent forecasts has been a critical input into the MTBF in several countries, although it has taken very different forms.

### 4.3.3. Medium-Term Fiscal Objectives and Rules

A fixed objective for one or more aggregate fiscal variables in the medium term provides an anchor for the formulation of medium-term ceilings or projections. Although a majority of advanced economies set some form of fiscal objective or rule, the comprehensiveness, transparency, and strictness of these rules or objectives vary (see Chapter 3).<sup>8</sup> To guide the setting of medium-term budget parameters effectively, a good fiscal policy objective needs to be

- clear so that it can be readily translated into the level of expenditure,
- medium term in orientation to define a path for expenditure over time, and
- consistent over time to avoid disruptive changes that undermine the credibility of the framework.

The aggregate fiscal objectives and rules on the one hand, and the MTBF on the other hand, are mutually interdependent. Objectives for the balance or aggregate expenditure in the medium term are credible only if government has at its disposal the instruments that enable it to ensure that proposed policies are consistent with those objectives. However, taking the time and effort to build up an MTBF requires the discipline created by a standing fiscal framework. It is no coincidence that decision makers start to request information about how the cost of policies will evolve only when government has committed not to exceed a particular aggregate expenditure level or a particular deficit.

### 4.3.4. Comprehensive, Unified, Top-Down Budget Process

If the MTBF is to have an impact on fiscal outcomes, the annual budget process must be able to resolve conflicting pressures and priorities and translate them into

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<sup>7</sup>As discussed in Chapters 1 and 2, several studies have found a positive bias in macroeconomic forecasts (Strauch, Hallerberg, and von Hagen, 2004; Jonung and Larch, 2006). Efforts have been made to address this positive bias by setting up independent forecasting agencies (Austria, Denmark, Germany, the Netherlands, Sweden, the United Kingdom, and the United States), or by committing to using private sector forecasts (Canada). See Calmfors and Wren-Lewis (2011) for a survey.

<sup>8</sup>See Kumar and others (2009) for a survey and discussion of fiscal rules.

a set of agreed-on expenditure allocations. Budget preparation can often fall short of this goal because of expenditure rigidities and fragmented decision making. If previous medium-term plans are discarded when the annual budget is prepared, the control that should be instilled by the MTBF is lost. To ensure that medium-term ceilings or estimates shape the annual budget, three elements need to be in place.

First, budget preparation should follow a top-down sequence to help the government preserve aggregate expenditure discipline throughout the process of prioritizing limited resources.<sup>9</sup> A top-down budget process is defined as a decision-making sequence in which a limit on total expenditure is adopted before expenditure is allocated to specific sectors or ministries, and ministerial expenditure ceilings are fixed before individual appropriations are debated. A top-down budget preparation process has been shown to be effective in addressing the tendency for incremental expenditure drift that would otherwise undo the restraint engendered by the MTBF.

Second, both the budget and the budget process should be comprehensive so that all major expenditure decisions are made at one time. Ideally, the budget should include all central government revenue and expenditure and should be adopted as a single document—this is often referred to as the principle of unity. If the budget is fragmented into separate budgets for social security, pensions, public investment funds, and extrabudgetary agencies, government's and parliament's understanding of government's consolidated revenue and expenditure position is clouded, complicating aggregate fiscal control. Furthermore, a budget process that allows policy initiatives with fiscal implications to be introduced after the budget has been adopted undermines the integrity and discipline of the budget process.

Third, the budget needs to be relatively unencumbered by extensive earmarking or standing expenditure commitments. In a situation in which certain revenue has been assigned to a specific objective (e.g., fuel excise to a road maintenance fund) or in which explicit objectives require the allocation of a certain percentage of total expenditure or GDP to particular sectors (e.g., education, health care, or agricultural support), the government can find it difficult to enforce multiyear expenditure restrictions. These expenditure rigidities reduce the scope for government to absorb new policies and pressures through reallocation of resources, which increases the pressure to expand the total expenditure envelope to accommodate them.

#### **4.4. KEY FEATURES AND DESIGN ELEMENTS**

Countries that have introduced medium-term budgeting have done so in different institutional contexts, facing different challenges, and pursuing different budget objectives. Accordingly, successful MTBFs differ in many respects. However, successful models have four key features in common:

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<sup>9</sup> See Ljungman (2009) for a discussion of how a top-down budget process can help strengthen fiscal discipline.

- multiyear expenditure limits that define the nature, level, and terms of the restrictions being placed on future budget decisions;
- expenditure prioritization mechanisms that ensure that expenditure is allocated within those multiyear restrictions in a manner that reflects government policy priorities;
- forward-looking expenditure controls through which the consistency of updated medium-term expenditure projections with approved medium-term expenditure plans is monitored and enforced; and
- dynamic accountability arrangements through which adherence to stated medium-term objectives can be assessed by parliament and the general public over time.

#### 4.4.1. Multiyear Spending Limits

One of the main challenges with adopting a medium-term horizon in budgeting is ensuring that decision makers remain committed to revenue and expenditure estimates for years beyond the legislated budget. As time goes by, government is often tempted to move away from what it had said it would do in the future. This straying can result from changes in the external environment (such as higher inflation or unemployment or more people eligible for maternity and paternity benefits), the introduction of new policies, or simply a lack of attention to formulation of the original medium-term plans. In all of these instances, a case can be made for allowing for some upward revision to the original multiyear estimate. However, accommodating these pressures calls into question the credibility and value of the medium-term planning process—with the concomitant risk that decision makers cease to invest time and effort in the production of accurate and updated fiscal projections.

Resolving this tension between the need for a firm commitment to medium-term estimates and the need to ensure that previously made plans are still relevant and legitimate when the time comes to implement them is a key issue in designing an MTBF. Four main questions arise in defining the multiyear expenditure limits that define that framework:

- What should the *nature* of those multiyear limits be—a nominal figure, a real level of expenditure, or a commitment to deliver a specific volume of output?
- What should the *level of detail* and the *categorization* of those multiyear limits be—aggregate expenditure, ministerial expenditure allocations, government programs, or economic expenditure categories?
- What should the *coverage* of those multiyear limits be—should certain categories of government expenditure not be subjected to any medium-term restrictions?
- How often should those multiyear limits be *revised* to allow for discretionary changes?



An effective set of multiyear spending limits should support all three objectives of the medium-term budget framework discussed in the previous section: spending is kept within available resources, the budget allocates money to the right policies, and the administration is efficient in delivering those policies. However, as discussed in detail below, a trade-off must be made between these objectives, and the trade-off manifests itself in the design of multiyear expenditure limits.

The nature of the multiyear spending limits concerns both what kind of restriction the government puts on itself in the medium term and what it takes upon itself to deliver. In its most simple and straightforward form, the government sets a nominal ceiling on expenditure, and commits itself not to exceed this level. This type of commitment is simple to interpret and monitor. A nominal expenditure ceiling lends itself to ensuring fiscal discipline, but can come into conflict with government's policy priorities if conditions change.

A second approach is to set a restriction on the real expenditure level and allow the nominal level to vary as inflation projections are updated. Setting ceilings in real terms avoids squeezing or expanding resource allocations simply because the price and wage levels in the economy vary, but comes at the cost of less transparency and predictability of expenditure.

Finally, the medium-term commitment can be defined as a particular level of policy output, allowing the expenditure allocations to vary with both price and volume parameters that affect the cost of delivering that policy. The most obvious example of such a commitment would be a legislated entitlement for which allocations vary with the number of eligible beneficiaries. This commitment mechanism protects the delivery of government goods and services, but requires sophisticated mechanisms for costing, forecasting, and revising expenditure estimates.

A second design feature of medium-term expenditure limits is the category of expenditure for which the limits are set and at what level of aggregation. Three broad approaches can be discerned.

- Government can commit to a future *aggregate level of expenditure*. In doing so, government emphasizes its commitment to maintaining an overall fiscal position for any particular composition of spending in the medium term.
- Government can commit to a future *allocation of expenditure between administrative or policy units* at the level of ministries, agencies, policy areas, or individual programs.
- Government can commit to a future *composition of expenditure* in economic categories such as consumption, investment, and transfers. Such a presentation can be useful for analyzing the impact of fiscal policy on the macroeconomy and making cross-country comparisons, but does not typically support the objectives of maintaining a sustainable fiscal position, allocative efficiency, and operational efficiency because the link to annual budget appropriations is weak.

A third design feature of medium-term expenditure limits concerns their coverage. Many countries decide either to exclude certain expenditure items from multiyear expenditure limits on the grounds that they are volatile, fiscally

neutral, nondiscretionary, or countercyclical in nature, or to define alternative medium-term expenditure restrictions for specific types of expenditure. The items of expenditure excluded or treated separately can include interest payments, expenditure financed by demand-driven user fees, expenditure financed by external grants, formula-driven transfers, and unemployment benefits and other entitlements.

As shown in Table 4.2, the coverage of medium-term expenditure limits varies substantially across countries, reflecting differences in both the types of commitments and control arrangements. The widest coverage is seen in the more flexible forward estimate commitments in Australia and the aggregate ceilings of Finland, the Netherlands, and Sweden. Where ministerial ceilings in nominal terms have been chosen, as in the United Kingdom and France, numerous items have been excluded to enable compliance at the ministerial level.

TABLE 4.2

## Expenditures Excluded from Multiyear Commitments

Criteria for Exclusion	Example	MTBF Model					
		Aggregate ceilings			Ministerial ceilings		Program estimates
		Sweden	Netherlands	Finland	United Kingdom	France	
External obligations	Debt interest International subscriptions	Yes	Yes	Yes	Yes To EU		
Automatic stabilizer	Unemployment benefits		Yes	Yes	Yes	Yes	
Fiscally neutral	Spending of external grants			From EU	From EU		
	Spending of earmarked revenue		Gas		Lottery		
	Taxes on public bodies			VAT			
	Accounting adjustments				Noncash		
Formula-driven	Social security			Some	Yes	Yes	
	Health insurance			Some		Yes	
	Transfers from central government to local government			Yes		Yes	
Unpredictable	Spending of privatization windfalls		Yes				
	Military operations				Yes		
Coverage of multiyear restrictions (Percent of central government)		97	80	78	59	39	100

Source: National authorities.

Note: MTBF= medium-term budget framework; VAT= value-added tax.

The fourth design feature of multiyear spending limits concerns the frequency with which revisions to those limits are made to allow for discretionary changes in policy. Such revisions are distinct from the updates to existing medium-term plans allowed under commitments to real expenditure levels and output levels, which are intended to ensure that resources remain adequate for government policies. Government may change its policy priorities, either by reallocating between policy areas, or by increasing or reducing the total volume of public goods and services. There are two broad approaches to revisions.

An annual review cycle opens up the multiannual limits for revision every time the budget itself is discussed, which can be once—or sometimes twice—per year. These reviews of medium-term spending limits will reflect both changes to the annual budget, projected into the medium term, and changes introduced for years beyond the annual budget horizon.

A multiannual review cycle locks in the multiyear limits for a period of two, three, or four years. Between review cycles, the limits are not reopened to allow for changes in discretionary policy.

These four aspects of medium-term expenditure limits can be combined in several ways in the MTBF, as seen in the variety of country practices.

In Sweden,<sup>10</sup> the key political commitment to aggregate fiscal discipline is to remain below the three-year nominal ceiling on central government expenditure. The aggregate ceiling covers all primary central government expenditure. The ceiling is not revised once set, and an additional year is added to the ceiling each autumn alongside the budget. With regard to policies, nominal medium-term estimates are set for 27 expenditure areas, which are updated twice a year to reflect changes in macroeconomic factors, volumes in transfer systems, and policy changes. In addition, each of the 500 appropriations in the budget is defined in the medium term to remain constant in nominal terms, to be updated with inflation, or to be determined by volume. Depending on its definition, the medium-term estimate for each appropriation is updated twice per year together with the budget.

In the United Kingdom and France, the MTBF comprises a set of 25 to 30 ministerial spending ceilings, set for a two- or three-year period in nominal terms. Ministerial ceilings cover administrative expenditure, investments, and some program expenditure. However, a broader range of items, including interest expenditure, social security entitlements, and unemployment benefits, are not covered by any medium-term expenditure commitments. Ministerial expenditure ceilings are used both to enforce aggregate spending control and to define broad ministerial priorities.

In Finland, the government decides, at the beginning of its four-year term, on a binding ceiling for budget expenditure for the whole term in its Government Program.<sup>11</sup> The ceiling is set in real terms, and the annual central government

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<sup>10</sup> See Ljungman (2007) for a description of the MTBF in Sweden.

<sup>11</sup> See Finland, Ministry of Finance (2011) for a discussion of the Finnish budget system.

spending limit decisions are revised only for changes in the price and cost level and for adjustments in the budget structure. The parliamentary term spending limits set a ceiling on about three-fourths of total budgetary expenditure. Expenditures affected by cyclical fluctuations and automatic stabilizers, such as unemployment security expenditure, are outside the scope of the spending limits (however, expenditure effects resulting from changes to the criteria for these items are included in the spending limits). The Netherlands operates a similar system of a fixed four-year aggregate ceiling expressed in real terms.

In Australia, the forward estimates model is based on the government's commitment to delivering approved policies and absorbing any changes in external conditions that affect the cost of producing those policies.<sup>12</sup> In practice, parameter-driven updates of medium-term estimates are made twice a year, allowing the total expenditure levels to change. Discretionary changes to policies and estimates can be introduced in either the annual budget or midyear update processes.

#### 4.4.2. Expenditure Prioritization Mechanisms

The credibility of and respect for the government's medium-term expenditure plans require that they both reflect the government's policy priorities and are, at the same time, consistent with the multiyear spending limits defined by the framework. Achieving these dual objectives requires institutional mechanisms that allow competing policies to be prioritized in a manner that takes into account their medium-term budgetary impact. The key elements of an effective multiyear expenditure prioritization mechanism are

- an *integrated medium-term expenditure planning and budgeting* process;
- 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; and
- a *forum for discussing and deciding on expenditure priorities* that is perceived to be comprehensive, politically legitimate, evidence based, and binding.

Three approaches to integrating medium-term expenditure planning in the budgeting process can be found across countries. First, the most well-developed MTBFs are fully integrated with the budget process, and all discussions of revenue and expenditure policies consider their impact in a multiyear horizon. A second and less ambitious approach is to maintain an annual perspective at the most detailed budget level. Medium-term projections are produced for specific parts of the budget, and often at a more aggregated level than for the annual budget. A third group of countries have opted for organizing medium-term planning as a separate process, following a different timetable from that for the preparation and approval of the annual budget. In general, the latter two approaches have been shown to have a very limited impact on actual policy prioritization.

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<sup>12</sup> See Blöndal and others (2008) for a description of the Australian budget system.

To assess the affordability of existing policies and understand the fiscal implications of policy changes, decision makers have to be presented with a decomposition of the medium-term estimates into *ongoing policies* and *new discretionary initiatives*. In advanced MTBFs, new and existing policies are separated comprehensively and consistently, and presented both at a summary level and for individual allocations in the budget. In other cases, the medium-term fiscal impact is presented only for a few selected policies deemed sufficiently important to justify such a breakdown. A key decision in enabling a decomposition of expenditure projections is establishing the basis for the no-policy-change assessment. Approaches differ across countries and across different categories of expenditure within countries.

In its most restrictive form, unchanged policy is defined as a nominally unchanged allocation in the medium term. This definition is used as the basis for expenditure covered by the multiannual ministerial ceilings in the United Kingdom and for most subsidy programs in Sweden.

In a more accommodating approach, the projected medium-term allocations for unchanged policy are adjusted for parameters such as projected wage and price inflation and demographic factors that affect both the costs and recipient volumes of policies, possibly with a deduction of an efficiency dividend. This approach is used for expenditure in Australia and Sweden. It provides greater certainty to budget actors that policies will be delivered, and puts the onus on policymakers to make explicit policy changes if those policies are becoming too costly, or in Sweden's case, if they are jeopardizing the aggregate expenditure ceiling.

The final element of medium-term policy prioritization is the existence of an *institutional forum within government for discussing and deciding between competing expenditure pressures and proposals*. Although the nature of these decision-making mechanisms depends on the institutional and political context, the most effective of these forums tend to (1) cover all government activities, (2) engage high-level political decision makers, (3) make use of evidence about expenditure performance, and (4) represent the sole and final decision-making authority. Otherwise, the precise configuration of these forums varies, as in the examples below:

- In Finland and the Netherlands, the focal point for the determination of medium-term expenditure priorities is the Coalition Agreement, which is negotiated between the political parties that form the governing coalition at the start of each parliament. The Coalition Agreement itself sets the real expenditure ceilings for the four years of the parliamentary session.
- In the United Kingdom, the principal forum for discussing and determining multiyear expenditure limits for each department is the Comprehensive Spending Review conducted once every two to three years by the treasury with the final outcome negotiated between ministers, the chancellor of the exchequer (minister of finance), and the prime minister.

- In Australia, the task of arbitrating between competing new expenditure proposals for each annual budget is delegated by the cabinet to the Expenditure Review Committee, a cabinet subcommittee.
- In Sweden, the cabinet's annual budget retreat in the spring is the focal point for all major expenditure decisions, the outcome of which is an agreement on the level of expenditure for each of the 27 expenditure areas.

#### 4.4.3. Forward-Looking Expenditure Controls

Having formulated its medium-term commitments and determined the priorities underpinning those commitments, government needs to have forward-looking expenditure controls in place that ensure compliance with the medium-term plans even as external conditions change. Four types of forward-looking control mechanisms are important to ensuring that expenditure decisions are consistent with those commitments and priorities:

- regular *updates of medium-term expenditure projections*,
- sufficient *margins between expenditure commitments and expenditure plans* to absorb unexpected events without requiring reprioritization of policies,
- firm controls on ministries' and agencies' ability to enter into *multiyear expenditure commitments*, and
- controls over the accumulation, stock, or drawdown of *carryovers*.

Frequent overshooting of expenditure limits set in the MTBF will quickly reduce its credibility. Safeguarding the integrity of the framework requires that initial plans be accurate and that decision makers be quickly informed of any emerging pressures so that they can take action if necessary. To ensure this level of accuracy and timeliness of information, high-quality expenditure projections, updated on a regular basis, are needed. Three approaches are found in countries with medium-term budget frameworks: (1) a complete reassessment of the expected expenditure in the government's medium-term plans on two or more occasions during the year; (2) a partial update of the medium-term projections halfway through the year; and (3) no update of medium-term expenditure projections outside preparation of the medium-term budget plans.

Even those countries with well-developed forecasting capacity will face uncertainty about future expenditure developments. Therefore, countries with effective MTBFs tend to set aside an unallocated margin or reserve between their medium-term expenditure limits and the sum of all projected expenditures. The function of this margin is to absorb the unexpected expenditure pressures that inevitably emerge. Such margins can take a number of forms (see Table 4.3): explicit prudence factors in GDP projections (as used in the United Kingdom), a conservative bias in expenditure forecasts (as in Australia), and provision of headroom under aggregate fiscal restrictions (as in Sweden). The size of margins or reserves varies across countries, but they tend to be relatively small in the budget year (about 1 percent of total expenditure) and increase in size in the out

TABLE 4.3

Country	Implicit Margins		Explicit Margins		Total Contingency
	GDP forecast	Other economic assumptions	Within expenditure estimate	Within budget balance	Percent of total spending
Canada	MoF uses average of indicative forecasts	MoF adds 0.5% to 1.0% to interest rates and runs through model	Contingency reserve of 1.5% to 2.0% of total spending	MoF targets a surplus of 0.1% of GDP despite balance rule	3.5% to 4.0%
United Kingdom	MoF uses GDP forecast 0.25% below trend	7 other economic assumptions explicitly cautious	Reserves and margins equal to 0.75% to 1.0% of total spending	MoF targets average surplus of 0.2% of GDP despite golden rule	2.5% to 3.0%
Sweden	Budget based on central assumptions for GDP and other macro variables <sup>1</sup>		Budget margin within expenditure ceiling rising from 1.5% to 3.0% of total spending	None	1.0% to 3.0%
Netherlands	Deficit target and expenditure ceiling based on cautious economic scenario in which GDP is 0.5% to 1.0% below outturn		Central contingency reserve of 0.1% of total spending	Most recent CA targets structural surplus of 1.0% of GDP	1.1% to 2.0%
Australia	Budget is based on central economic assumptions <sup>1</sup>	Conservative bias in forward estimates of 0.5% to 1.5% of spending	No central contingency reserve	None	0.5% to 1.5%

Source: Annual budget documents.

Note: CA = cyclically adjusted; MoF = Ministry of Finance; MTBF = medium-term budget framework.

<sup>1</sup>“Central” refers to taking the forecast that is neither cautious nor optimistic but refers to the most likely perceived ex ante outcome.

years (to between 1.5 and 3 percent of total expenditure) as the range of uncertainty of expenditure and revenue outcomes increases.

However, overly generous contingency reserves also introduce a risk of creating expectations that more resources will become available as time progresses, thereby reducing the focus on policies during the budget prioritization process. One way to prevent this expectation is to put in place explicit rules governing how such reserves can be accessed. For example, in the United Kingdom claims on the central contingency reserves are permitted only for expenditure pressures deemed to be unforeseeable, unavoidable, and unabsorbable within ministerial budgets. Australia has even more stringent restrictions on its reserve, which can be used only to deal with unexpected variations in forecast parameters and not to fund new policies.

Another set of control elements prevents ministries or agencies from entering into multiannual expenditure commitments that are inconsistent with the agreed-on multiyear expenditure plans for their sectors. To be effective, these multiyear commitment controls must apply to all manner of expenditure commitments from political promises, to legal obligations, to contractual undertakings. In the United Kingdom, these controls take the form of a nominal delegated limit for each ministry, above which the ministry must seek treasury approval before entering into a multiyear commitment. Finland and Sweden have even more restrictive regimes that require all multiyear expenditure commitments to be approved by parliament as part of the budget.

The introduction of a medium-term perspective to budgeting also creates opportunities to promote intertemporal efficiency by allowing ministries to carry over unspent appropriations from one financial year to the next. At the same time, the unfettered accumulation of carryovers by ministries can create a risk to the credibility of the budget. To counter these problems, countries tend to adopt rules or numerical limits governing the amount of unspent appropriations that can be carried over. These limits can take the following forms:

- Limiting the *type of appropriations* that can be carried over; for example, Australia allows full carryover of administrative costs within departments but requires cabinet approval and reappropriation for any carryover of program expenditure.
- Limiting the *accumulation of carryovers* from one year to the next; for instance, as a default position, France and Sweden allow only 3 percent of expenditure to be carried over from one year to the next.
- Limiting the *drawdown of carryovers* in a given budget year; for example, until 2010, the United Kingdom allowed unlimited accumulation of carryover entitlements by ministries but required treasury approval before those carryovers could be spent in a given budget year.

#### 4.4.4. Accountability Mechanisms

Ultimately, the credibility of a government's MTBF depends on its ability to demonstrate how today's assessment of the current and future budgetary position is consistent with previously formulated medium-term plans. Demonstrating this consistency between previous multiyear budget plans and current budgetary outturns and forecasts requires a set of accountability mechanisms that ensure that

- multiyear plans, annual budgets, and final accounts are presented on a comparable basis,
- any deviations between multiyear plans and expenditure outcomes are comprehensively and transparently reconciled, and
- governments and budget actors are held to account for any unjustified deviations from multiyear plans.

Ensuring comparability between plans and outcomes requires governments to harmonize the presentation of different kinds of financial reports. Countries with



the most firmly established and effective MTBFs have typically adopted a single, harmonized classification system for multiyear projections, annual budgets, and final accounts.

- In the United Kingdom, multiyear departmental expenditure limits, annual ministerial budget estimates, and final departmental accounts are all presented in accrual terms.
- In Sweden, aggregate expenditure ceilings, the 27 expenditure areas, multiyear expenditure estimates, the annual budget, and final budget outturn are all presented in cash terms.
- In Finland, the multiannual spending limits, the annual budget, and final budget outturn are presented mainly in cash terms.
- In Australia, multiyear estimates, annual portfolio budget statements, and final budget outturn are presented in both cash and accrual terms.

By contrast, one of many reasons that the stability and convergence programs and targets required of all European Union member states have not been effective in constraining fiscal policy is that they are not presented on the same basis or do not have the same coverage as the main instrument of policy, the national budget. Although the three-year revenue and expenditure projections and targets in the Stability and Growth Pact are presented according to the European System of Accounts 1995, which is on an accrual basis and covers general government, these projections and targets are only tenuously linked to national budgets and accounts, which largely continue to be presented on a cash basis and cover only budgetary central government.

Although successive vintages of a government's multiyear expenditure plans will always deviate from one another and from the final expenditure outturns, the credibility of a government's medium-term plans can be further supported by providing a systematic account of the reasons for those differences—primarily between those changes that have occurred owing to discretionary policy changes and those that have occurred owing to factors outside government control. The level of detail differs across countries, but the most sophisticated of these reconciliations breaks down any differences between forecasts and outturn for each ministry, policy area, or program into

- macroeconomic determinants, such as GDP growth, inflation, or unemployment;
- operational parameters specific to the particular ministry, program, or policy area, such as lower than expected birthrate (for maternity benefits) or lower than expected level of enrollment (for school expenditure);
- accounting changes, such as changes in the accounting treatment of particular transactions within ministries or reclassification of a particular budget line from one ministry to another; and
- policy measures showing the gross impact of all major discretionary increases or reductions in expenditure on a particular ministry, policy area, or program.

This decomposition should be explained according to

- expected and actual carryovers showing the net drawdown or accumulation of unspent appropriations, and
- net over- or underspend, which should largely be accounted for by claims on the aforementioned contingency reserve and authorized or unauthorized overspending.

Once the size and source of any unjustified deviation from the government's multiyear expenditure limits has been identified, some mechanism for holding those responsible to account must be in place. Placement of responsibility requires that both ministries of finance and parliaments treat seriously deviations from multiyear expenditure plans that threaten compliance with government commitments, though typically not as seriously as overspends against annual appropriations. For example, in the United Kingdom, ministries that forecast a breach in their three-year expenditure limit in a future year are subject to the same administrative sanctions as those that exceed their budgets in the current year. Responsible ministries are required to have that forecast overspend regularized through a claim on the central contingency reserve or to accept an offsetting reduction in their expenditure ceilings in one of the other years. In Australia, where parameter-driven deviations from expenditure estimates are allowed, any overspends are subject to scrutiny by parliament under the parliamentary committee system, in which departmental heads report against their outcomes and are asked to explain any revisions.

Independent fiscal agencies can also play an important role in holding governments to account for performance against their multiyear expenditure plans. See Chapter 6 for a more detailed discussion.

## **4.5. EVALUATING THE PERFORMANCE OF DIFFERENT MTBF MODELS**

This section evaluates the relative performance of different MTBF models (binding, indicative, and variants) in delivering the benefits discussed in the first section. By looking at both the contemporaneous performance of different models across countries and changes in an MTBF model within the same country over time, this section identifies which model or models most effectively achieve key public financial management objectives of ensuring better control over the aggregate fiscal position, promoting more effective allocation of expenditure between sectors and priorities, and encouraging more efficient use of resources by budget managers. (See Chapter 1 for a detailed discussion on public financial management objectives.)

### **4.5.1. Cross-Country Analysis of MTBF Approaches and Models**

This subsection reviews the performance of the three broad approaches to medium-term budget planning (binding, indicative, and no MTBF) in meeting

the above objectives. It goes on to examine the relative performance of the three binding models (fixed aggregate ceilings, fixed ministerial ceilings, and forward estimates). This analysis is based on a sample of 23 countries, which are grouped according to their MTBF approaches and models, as summarized in Table 4.1.

### *Securing and Maintaining a Sustainable Fiscal Position*

The effectiveness of different MTBF models in securing aggregate fiscal discipline is assessed by looking at the accuracy of the countries' multiyear fiscal forecasts. Forecasting accuracy is measured by the average difference between three-year-ahead forecasts and outturns for government expenditure, revenue, and balance after base effects are controlled for.<sup>13</sup>

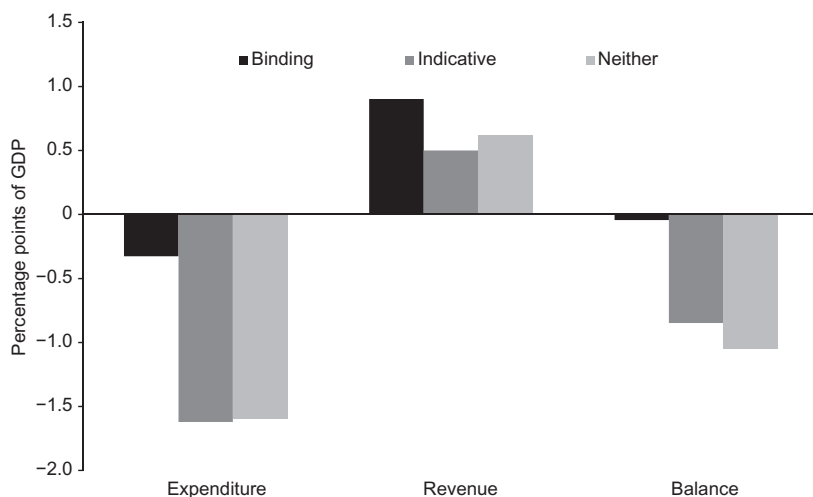
A comparison of relative forecast performance suggests that countries with binding MTBFs are better at meeting their medium-term fiscal objectives. Whereas all countries tended to overestimate the balance three years ahead, those with binding MTBFs did so by less than 0.1 percent of GDP, compared with 0.8 percent for those with indicative MTBFs, and 1.0 percent for countries with no MTBFs (Figure 4.3). This strong fiscal forecasting performance is attributable primarily to the success of binding MTBFs in constraining the medium-term evolution of expenditure. Although most countries tended to underestimate the level of expenditure three years ahead, those with binding MTBFs did so by only 0.3 percent of GDP on average compared with 1.6 percent of GDP for those with indicative or no MTBFs. Countries with binding MTBFs also tend to be more cautious in forecasting revenues. The general tendency is to underestimate revenues three years ahead, but those with binding MTBFs did so by 0.9 percent of GDP on average compared with 0.5 percent for those with indicative frameworks and 0.6 percent for those with no MTBFs.

Among the different binding MTBF models, fixed aggregate ceilings are most effective at controlling future expenditure (Figure 4.4). Countries with fixed aggregate ceilings tended to stick to their three-year-ahead forecasts for expenditure, whereas countries with fixed ministerial ceilings or forward estimates tended to overspend by between 0.8 percent and 1.0 percent of GDP. The success of MTBFs with fixed aggregate ceilings can be attributed to both the broad coverage of aggregate ceilings and government commitment to ensuring these ceilings are respected regardless of macroeconomic or fiscal developments in the interim.

However, Australia, with its forward estimates approach on a program basis (program estimates updated annually), displayed the best overall fiscal performance.

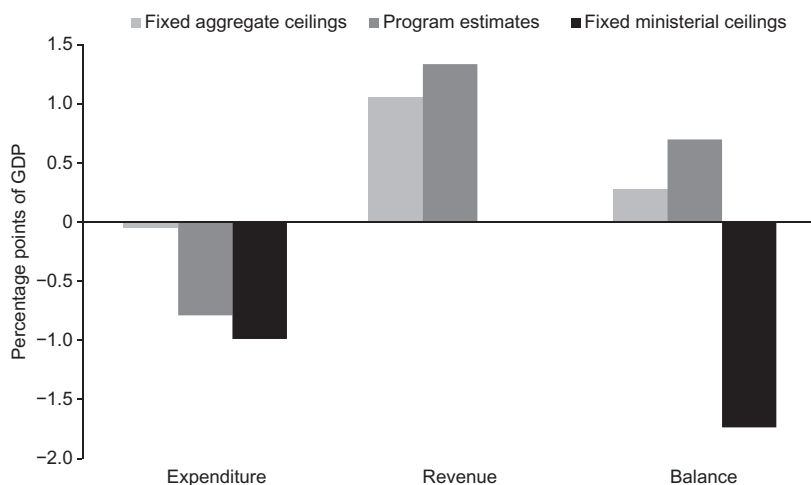
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<sup>13</sup>Ratios to GDP are used to control for both size of government and levels of inflation, which can otherwise bias the results in favor of countries with smaller governments and lower inflation. Averages over 1997 to 2007 are used to control for cyclical effects while preventing the findings from being distorted by the onset of the global financial crisis in 2008.



**Figure 4.3** Average Three-Year-Ahead Forecast Error for Expenditure, Revenue, and Balance, 1998–2007

Sources: EU countries: stability and convergence programs. All other countries: year-end budget reconciliation documents.



**Figure 4.4** Average Three-Year-Ahead Forecast Error for Expenditure, Revenue, and Balance for Different Types of Binding Medium-Term Budget Framework, 1998–2007

Sources: Finland, the Netherlands, Sweden, United Kingdom: stability and convergence programs. Australia: year-end budget reconciliation documents.

For the period under examination, Australia tended to underestimate revenue three years ahead by 1.4 percent of GDP.<sup>14</sup> About 0.8 percentage point of this resulting revenue windfall was, on average, used to increase expenditure. However, this still left 0.6 percentage point of GDP overperformance against the government's initial

<sup>14</sup>To some degree, this overperformance on revenue was the result of positive terms-of-trade shocks from the upswing in prices of commodities—a key export in Australia, which boosted tax revenues.

forecast for the fiscal balance, the most cautious forecast for the fiscal balance of any country in the sample.

Although these results point to the effectiveness of the binding MTBFs, given the complex interactions that occur through the budget process, conclusively drawing out causality between the MTBFs and fiscal outcomes from the data alone is difficult. Relatively few data points are available and a large number of external factors are at play—such as exogenous economic shocks to individual countries that could lead to forecast errors even with the best system. Furthermore, well-functioning MTBFs and good fiscal outcomes may both be the result of strong underlying budget formulation and policymaking. However, discussion with key officials involved in the introduction and development of MTBFs indicates that the introduction of these frameworks did, in fact, change behavior and contribute to better fiscal outcomes. For example, as described in Box 4.2, the United Kingdom experimented with three different MTBF approaches in 30 years and found that the progressive introduction of more binding MTBF models coincided with a steady increase in the accuracy of the government's medium-term expenditure forecasts.

### *Enabling Medium-Term Expenditure Planning*

The effectiveness of different MTBF models in enabling medium-term expenditure planning is assessed by examining the average volatility of general government expenditure. The average year-on-year volatility in the real growth rate of government expenditure is used as a proxy for the overall predictability of expenditure developments over time and, therefore, the extent to which ministries can expect some stability in their own allocations.<sup>15</sup> Once again, averages for 1998 through 2007 are used for the reasons already discussed.

Countries with binding MTBFs also seem to promote medium-term expenditure planning more effectively than do those with indicative MTBFs or no MTBF. Countries with binding MTBFs have an average annual volatility in real expenditure growth of about 2½ percent, which is less than half the 5.4 percent volatility of real expenditure in countries with indicative MTBFs (Table 4.4). Surprisingly, countries with no MTBF actually experience lower average volatility in real expenditure than those with indicative MTBFs.

Among countries with binding MTBFs, the forward estimates approach seems to promote medium-term expenditure planning most effectively. Australia's forward estimates resulted in average annual expenditure volatility of 1.8 percent compared with 2.7 percent for the United Kingdom's fixed ministerial ceilings and 3.0 percent for fixed aggregate ceilings. This somewhat counterintuitive finding could be attributed to the detailed understanding of expenditure dynamics engendered by Australia's forward estimates process, which serves to stabilize the year-on-year allocation of resources. It may also be attributable to the fact that under the fixed frameworks operated by Finland, the Netherlands, and the

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<sup>15</sup>The volatility of total expenditure also depends on the structure of government spending. Countries with a large proportion of social security and unemployment transfers will typically experience higher volatility than countries with larger proportions of government consumption and investment.

TABLE 4.4

Predictability and Dispersion of Spending by MTBF Classification		
	Average volatility of real government spending, 1998–2007 (Percent)	Real growth rate dispersion in government spending by function, 1998–2007 (Percent)
<b>None</b>	4.1	9.1
<b>Indicative</b>	5.4	9.5
<b>Binding</b>	2.4	6.7
<i>of which</i>		
Fixed aggregate	3.1	6.3
Fixed ministry	2.7	6.8
Program estimates	1.8	8.0

Sources: IMF, *World Economic Outlook*, October 2010; United Nations Statistics Division, Classification of the Functions of Government Database; Australian Bureau of Statistics, Commonwealth General Government Expenses by Purpose.

United Kingdom, major discontinuities in expenditure growth rates can occur when one multiyear expenditure plan runs into the next.

### *Promoting Effective Allocation of Resources*

Measuring the effectiveness of different MTBF models in promoting efficiency is complicated by the lack of consensus on what constitutes an effective allocation of resources, which depends on the political preference of the government in office.

Therefore, two proxy measures of efficiency are used. The first is the extent to which nonfinancial performance information is used in setting ministerial budgets, which measures whether efficiency of expenditure is a formal consideration in the determination of its allocation. The second is the average standard deviation in real growth rates between different sectors during the 10 years from 1998 to 2008, which measures how closely the allocation of expenditure to different sectors moves with the overall growth of expenditure (low dispersion) or with some other idiosyncratic sense of sectoral priorities (high dispersion).

Countries with binding MTBFs tend to make more extensive use of nonfinancial performance information. All countries with binding MTBFs use nonfinancial performance information when setting ministerial budgets, as compared with 45 percent of countries with indicative MTBFs and 29 percent of countries with no MTBF. The universal use of nonfinancial performance information among binding MTBF countries makes it impossible to say which binding MTBF models are most effective in integrating performance information into budget decision making.

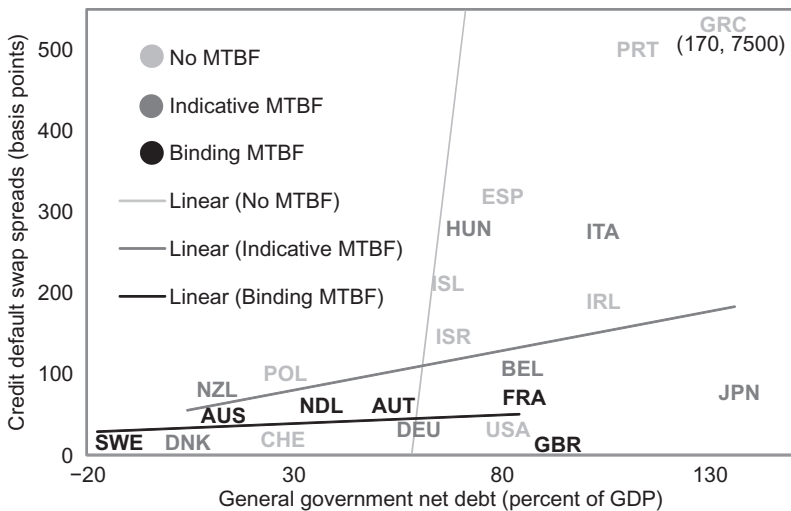
However, no correlation can be discerned between the type of MTBF in place and the dispersion of real growth rates in different sectors. As shown in Table 4.4, if anything, countries with binding MTBFs seem to have lower standard deviations in growth rates between sectors (6.7 percent) than do countries with indicative (9.5 percent) or no MTBF (9.1 percent). This outcome may be attributable to the fact that most countries with binding MTBFs

are advanced economies with inherently more stable allocations of expenditure between sectors. It may also illustrate that although binding MTBFs may promote more active discussion of the efficiency and effectiveness of expenditure, this discussion does not necessarily result in a substantially different allocation of expenditure.

#### 4.5.2. Operation of MTBFs Following the Financial Crisis

The global financial crisis proved to be a major test of many countries' fiscal positions, budgeting systems, and medium-term budget frameworks. In most instances, the medium-term budget frameworks helped governments respond to the crisis by providing a more sophisticated platform to plan, explain, and deliver both fiscal stimulus packages and subsequent fiscal consolidation programs. The analysis presented so far in this chapter has focused on the precrisis period. However, the period in the wake of the 2008–09 crisis also provides a number of examples of the use of MTBFs to adjust fiscal policy in a credible way following a large, unexpected shock that changes the state of the world.

Evidence of the role that MTBFs can play in supporting the credibility of a country's fiscal policy can be found in the relationship between government indebtedness and market perceptions of sovereign default risks in the aftermath of the crisis. Figure 4.5 illustrates the relationship between general government debt levels and credit default swap spreads for a group of 23 advanced economies at end-2011. It shows that the relationship between government indebtedness and market perceptions of sovereign default risk (as measured by credit default



**Figure 4.5** Perception of Default Risk versus Government Debt Levels, End-2011

Source: Credit default swaps from Thomson Reuters Datastream; net debt from IMF, *Fiscal Monitor* (October 2012).

Note: MTBF = medium-term budget framework. For expansion of three-letter country abbreviations, see, for example, the UN Statistical Division's list at <http://unstats.un.org/unsd/methods/m49/m49alpha.htm>.

swap spreads) was strongest for those countries without MTBFs and weakest for those countries with binding MTBFs. One interpretation is that, regardless of their debt levels in 2011, governments with binding MTBFs in place were able to convince markets that they would be able to deliver on their medium-term fiscal consolidation plans. Thus, having a binding MTBF in place provided these countries additional fiscal credibility.

The remainder of this section examines in more detail how the U.K. and Australian MTBFs responded to large reductions in both output and fiscal revenues in the wake of the crisis, initially through stimulus and then through fiscal consolidation.

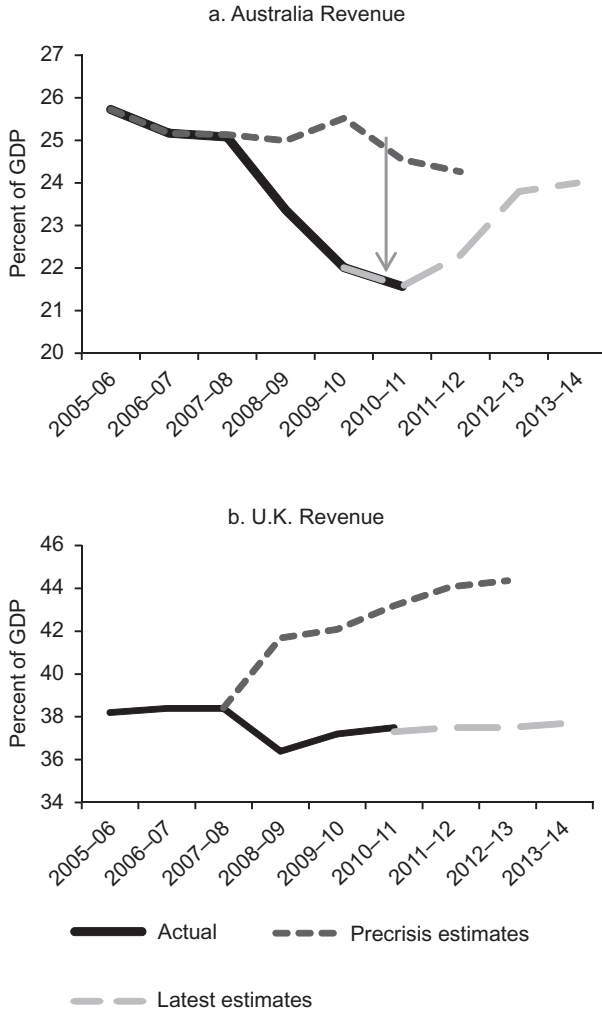
The output shock accompanying the financial crisis led to a sharp and unexpected reduction in fiscal revenues (Figure 4.6). In the United Kingdom, before the crisis, total revenues were projected to be about 42 percent of GDP in 2010. After the crisis, revenues were revised downward 7 percentage points of GDP, to 35.1 percent of GDP. In Australia, the downward revision was slightly smaller, from a projected 25.5 percent of GDP to 22 percent of GDP following the crisis. These large shocks turned the fiscal outlook in each country on its head, and required policy responses to adjust to the new state of the world. The responses came in two parts.

The first was temporary fiscal stimulus. Unlike in a number of other countries where stimulus plans were laid out in broad terms and only for the year ahead and without requisite consideration of the evolution of public finances thereafter, the U.K. and Australian MTBFs provided platforms for the design and articulation of each government's fiscal plans in detail and over the medium term. An important part of an MTBF is the ability to estimate the economic impacts of fiscal policy changes, then feed them back into the public finance and macroeconomic projections, providing an integrated analysis of the shock and the policy response. Thus, the stimulus could be calibrated to provide optimal timing, composition, and size.

The second was a medium-term fiscal consolidation. Simultaneously with enunciating the full phasing of the stimulus, medium-term budget frameworks provided a platform for demonstrating when and how the stimulus was to be withdrawn and public finances returned to sustainability. This communication was important for managing market expectations. Rather than building increased spending into the expenditure base, which is the tendency under annual budgeting, medium-term budget frameworks were used to demonstrate how fiscal stimulus measures would be withdrawn and what the impact would be on economic growth and public finances.

In Australia, the consolidation path was announced at the time of the stimulus and was anchored by a fully specified deficit exit strategy. The exit strategy committed to keeping real expenditure growth to less than 2 percent a year until the budget returned to surplus and required that all new spending be offset (a pay-as-you-go rule) and that any revenue revisions be banked. Meeting these requirements for the entire forward estimates period became the focus of





**Figure 4.6** Adjustment of Revenue Forecasts after Crisis

Sources: Australia: 2008–09 and 2012–13 Budget Papers; United Kingdom: 2008 and 2012 Budgets.

decision making for the four subsequent budgets, ensuring that the strategy met expectations.

In the United Kingdom, the fiscal stimulus announced by the incumbent Labour government in the autumn of 2008 was delivered through a combination of temporary reductions in value-added taxes and a reprofiling of the three-year expenditure plans set out a year earlier in the 2007 Spending Review. This reprofiling of expenditure brought forward £3 billion (US\$5.6 billion) of investment expenditure planned for 2010 into 2008 and 2009. Following the general

election, the new Conservative–Liberal Democrat Coalition government used the 2010 Spending Review to set out detailed plans for eliminating the deficit and arresting the increase in government debt. The 2010 Spending Review set out five-year budgets for each line ministry for 2010–14 and assumed a reduction in government expenditure from 47 to 42 percent of GDP over the period.

In setting out the fiscal stimulus and consolidation plans, both countries' MTBFs obliged them to detail precisely how and when taxes and expenditures would rise and fall. This contrasts with the stimulus and consolidation plans of countries with no MTBF, which were general policy statements or commitments to meet particular spending rules or targets. The obligation to set out detailed expenditure plans at the outset of the crisis also enabled ministries and agencies to prepare for the consolidation phase by implementing the legislative, administrative, and operational measures needed to realize savings. For example, in the United Kingdom, the Department of Work and Pensions initiated a major reform to the system of disability benefits aimed at reducing its growing costs.

The real test of whether these countries' MTBFs were effective is whether the expenditure adjustment paths outlined initially were adhered to. Figure 4.7 suggests that this has been the case so far. In the United Kingdom, the spending reductions laid out in the 2010 spending review have been delivered, with expenditure actually coming in below the initial paths so far, and projected to remain in line with the initial commitment. Similarly, in Australia, the initial stimulus and exit path have been delivered, and although some variation in the 2011–12 outcome is expected as a result of reprofiling various expenditures (primarily defense), the expenditure share of GDP is projected to be in line with the initial path in 2012–13.

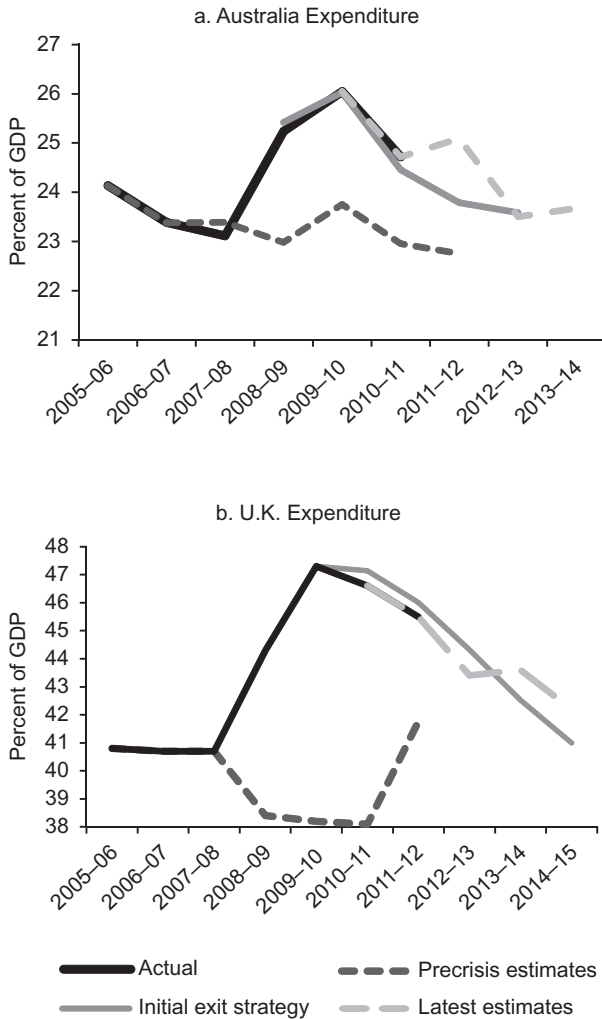
## 4.6. CONCLUSION

There is no single MTBF model. Countries establish MTBFs to achieve the public financial management objectives of maintaining a sustainable fiscal position, promoting more effective allocation of expenditure between sectors and priorities, and encouraging more efficient use of resources by budget managers.

The most appropriate model for a particular country or context depends on the point at which policymakers strike the balance between the competing objectives of multiyear budget planning. Aggregate expenditure ceilings tend to promote multiyear expenditure discipline more effectively, ministerial ceilings are more effective at facilitating multiyear expenditure planning, and forward estimates provide increased certainty that specific policy outcomes will be achieved.

This chapter underscores the following lessons from advanced-economy experience with MTBFs, which could help countries looking to embark on or progress down this path:

Successful multiyear budget planning requires sound basic fiscal institutions. Medium-term estimates need to be built upon a credible annual budget, based on prudent macroeconomic assumptions, guided by stable and transparent fiscal objectives, and implemented through a comprehensive and unified top-down



**Figure 4.7** Adjustment of Expenditure Forecasts after Crisis

Sources: Australia: 2008-09 and 2012-13 Budget Papers; United Kingdom: 2008 and 2012 Budgets.

budget process. Countries face trade-offs, however, between coverage, specificity, and certainty in designing the multiyear expenditure restrictions upon which their medium-term plans are based.

In addition to mechanisms through which government can credibly commit to medium-term expenditure restrictions, effective MTBFs require institutional arrangements that enable government to prioritize expenditure within those restrictions, contain expenditure pressures, and demonstrate consistency between restrictions and the current budgetary position. Effective prioritization

of expenditure within restrictions requires a clear separation of the cost of new and existing policies and an institutional forum for discussing and choosing between priorities.

Enforcing the credibility of the MTBF requires regularly updated multiyear expenditure projections, inclusion of adequate safety margins, firm control over multiyear expenditure commitments, and clear rules about the carryover of unspent appropriations.

The credibility of a country's medium-term budget plans depends on government's ability to present its annual budget and final accounts in a manner consistent with those plans, transparently account for any deviations, and hold budget actors responsible for any unjustified deviations.

Binding MTBF models are more effective than indicative MTBFs in promoting aggregate fiscal discipline and enabling multiyear expenditure planning. Some indirect evidence suggests that binding MTBFs also induce greater focus on the effectiveness of expenditure. There is less evidence that the adoption of an MTBF facilitates the reallocation of expenditure between sectors.

Finally, binding MTBFs also appear to provide a more effective platform for planning, communicating, and delivering both fiscal stimulus and fiscal consolidation plans. Anecdotal evidence suggests that, in the wake of the 2008 global economic crisis, countries with binding MTBFs were better able to convince markets of the credibility of their fiscal consolidation plans.

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