Managing Public Investment

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During the last few decades, the management of public investment has kept pace with broader changes in public financial management (PFM). The old approach of dual budgeting was abandoned in favor of a more integrated approach in which investment became increasingly delegated to spending ministries. Although initially successful, this response ended up downplaying the strategic importance of public investment to the economy, exposing long-term and costly decisions—characteristic of many large infrastructure projects—to shorter-term political whims and ultimately threatening economic prosperity. Realization of this danger has led to the resurgence of a more strategic approach to the management of public investment in which long-term priorities are more systematically identified.

The creation or renovation of physical assets is the ultimate output of government infrastructure projects and the main area of public investment considered in this chapter. Sound public investment management should follow PFM’s three well-established goals: (1) fiscal sustainability, and its consistency with total public investment spending over the long term; (2) allocative efficiency, requiring that selected projects be consistent with the government’s sectoral priorities, and resources be shifted to more productive sectors; and (3) operational efficiency, with projects and programs delivering outputs and outcomes in a cost-efficient manner.

In recent years, PFM reforms have come a long way toward meeting these objectives. For example, medium-term budget frameworks (see Chapter 4) bring with them greater assurance of funding over the medium term, and performance budgeting (see Chapter 7) improves the link between government policy objectives and desired outcomes while encouraging more efficient spending. Moreover, a growing number of countries have introduced longer-term fiscal projections.

This chapter examines the changing nature of public investment management and draws practical lessons for the way it should evolve in the future. It is divided into three sections. The first section discusses the challenges of traditional public investment management and its compatibility with new PFM innovations and asks what impact the new PFM innovations have had on the way governments manage their public investments. The second section looks at whether specialized processes for managing public investment spending are still needed, and how the traditional public investment management tools have adjusted to complement the broader PFM reforms. The third section discusses the different approaches to
financing public investments by focusing on how governments can make effective use of new contracting and funding arrangements for public investment (such as public-private partnerships). The chapter concludes by briefly examining emerging issues arising from the 2008–09 global economic and financial crisis and its aftermath and summarizing lessons for public investment management.

10.1. PUBLIC INVESTMENT AND THE NEW PUBLIC FINANCIAL MANAGEMENT TOOLS

Public investment management has over time become a technical function, often decentralized to sector ministries, with, at best, a residual regulatory and coordination role retained at the center. In parallel, its share as a percentage of GDP shrank between 1965 and 1990 globally from about 17 percent to 4 percent, a level it has more or less maintained since. Even in middle- and low-income countries, where the case for public investment would seem to be particularly strong, the share of GDP declined from 32 percent in 1965 to less than 10 percent in 2000.

Since 2000 and in the last few years in particular, there has been a reemergence of interest in public investment. What has driven this change? One concern has been the deleterious effects of the decline in public investment. In some advanced economies, the abundance of European Union (EU) Structural Funds has sparked renewed interest in public investment. In other countries, new forms of financing, such as public-private partnerships, have provided an attractive way to fund projects with apparently little or no impact on budgets and taxation. Finally, the 2008–09 global financial crisis triggered renewed interest in countercyclical fiscal policies, with a number of countries adopting economic stimulus packages that included accelerated infrastructure maintenance and increased investment in ready-to-go public projects.

10.1.1. Characteristics of Public Investment and Challenges of Traditional Public Investment Management

Unlike most other spending, public investment is generally lumpy. Large infrastructure projects in particular have long lead times for both the design and implementation phases, and because they are generally site specific, they have significant sunk costs. These characteristics have created a number of needs: a medium- to long-term planning framework; a carefully defined project cycle; and specialized skills, tools, and institutional and funding arrangements.

The traditional approach to public investment management, which concentrates on national development plans generally produced by a separate ministry of planning, has several weaknesses. These weaknesses include the tendency to become disconnected from fiscal constraints; a mismatch between required funding in the plan and budgetary allocation; procyclical spending; dual budgeting in which investment spending is handled separately from the rest of the budget; and ineffective sequencing and prioritization of projects, and inadequate planning, design, and monitoring of projects.
To address some of these weaknesses, the public investment program (PIP) approach introduced in the 1980s attempted to create a pipeline of well-prepared projects ready for selection in the annual budget process. The PIP approach aimed to strengthen the planning process by rigorously applying a systematic and standardized project cycle to all projects. In practice, however, many countries used the PIP to create long wish lists with no clear prioritization and sequencing; funding would then be sought for the projects on these lists. In other countries, the PIP approach was simply superseded by the more holistic medium-term budget framework discussed in the next section.

Traditional arrangements for public investment do not always keep a spotlight on operating costs throughout the full project cycle, particularly if dual budgeting is still practiced, if budgets retain a purely annual focus, and if projects are centrally planned and managed. As a result, funding for operating costs or the skilled staff needed to run the new facility may not be available when construction is completed, leading to delayed operation. To address this issue, some countries have resorted to devolving investment management to line ministries, making them responsible for harmonizing their investment and recurrent spending programs within their medium-term sector strategies. However, because spending ministries are often over-optimistic about the funding they are likely to get from the budget, and finance ministries are generally unable to meet their full expectations, devolution alone has generally been unable to resolve the mismatch between project investment and the recurrent costs arising from the investment.

The traditional ministry of planning still exists in many middle- and low-income countries, where investment is often donor funded and capacity in spending ministries to plan and implement projects remains weak. In most Organisation for Economic Co-operation and Development (OECD) countries, where these constraints usually do not exist, the traditional ministry of planning has been dismantled and its functions either merged into the ministry of finance or fully devolved to spending ministries.

10.1.2. Impact of the New PFM Innovations on Public Investment Management

The significant developments in PFM since the early 2000s have positively influenced the management of public investment, bringing it more into the mainstream of fiscal management and budgeting. Although this influence is to be welcomed, the new PFM tools do not completely meet the more specialized needs of public investment management. Understanding the benefits and the shortcomings of these new PFM tools is a prerequisite to understanding the way that public investment management has evolved and should continue to progress. This section discusses the most relevant developments, those that have had a clear

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1 In the 1990s, PIPs were the instrument of choice for low-income countries, which used them to present wish lists of projects at donor round tables, and projects were selected according to donor preferences.
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impact on public investment: medium-term fiscal frameworks, medium-term budget frameworks or expenditure ceilings, performance budgeting, and accrual accounting.

10.1.3. Public Investment Focusing on the Medium Term

Fiscal frameworks can create a more realistic and sustainable environment for public investment, as long as their coverage is comprehensive, their time horizon is adequately long, and they accurately reflect public investment costs. However, the practice in many countries often diverges, sometimes to a significant degree, from these requirements.

Furthermore, in times of crisis and consolidation, or uncertainty due to funding volatility, public investment is generally the first casualty. When fiscal policy is tightened, investment and maintenance tend to bear most of the adjustment and conversely tend to expand more than other expenditures in times of fiscal expansion. This gives rise to procyclical fiscal policy and a stop-and-go approach to public investment. The cost of this behavior can be significant when unfinished projects are left to deteriorate before they even start to yield economic benefits and capital stock is inadequately maintained, risking significant future rehabilitation costs.

The provision of adequate fiscal space for public investment has long been a concern in the budgetary planning process. Nowadays, investment spending must be accommodated within medium-term macroeconomic and budgetary frameworks and associated fiscal targets, as discussed in Chapter 4. These fiscal targets can affect the level of public investment spending in the following ways:

- An overall fiscal balance places a cap on total public investment spending given that such spending is generally included under “discretionary” spending. The budget available for investment is often determined as a residual, after all “nondiscretionary” recurrent spending (salaries, transfers, debt service, operating costs) has been considered.
- Restrictions on gross public debt further limit the scope for such spending because large capital projects are often funded from borrowing.
- Goals for structural balances can reduce procyclicality in spending, including public investment spending.

However, such clear-cut impacts on public investment cannot be taken for granted. For example, researchers remain divided about the impact of the EU’s Stability and Growth Pact on public investment (Galí and Perotti, 2003; Blanchard and Giavazzi, 2004; Mehrotra and Väilä, 2006; Dahan and Strawczynski, 2010).

Medium-term fiscal targets, and the underlying medium-term budget frameworks (MTBFs), assume that public investment projects, particularly infrastructure projects, will pay for themselves over the longer term either through fees or tariffs, or through increased revenues resulting from the higher growth generated by the investment. Although revenue generation may
be achieved quickly for certain types of infrastructure investment (roads, ports, airports), other projects (social sector investments) may take significantly longer to deliver results (and the impact will be indirect), and others still (government buildings, prisons) are unlikely to deliver any additional revenues.

Moreover, many large-scale public investment projects suffer from significant cost overruns during construction as well as an overestimation of benefits to be expected once the project is completed. Flyvbjerg, Skamris Holm, and Buhl’s (2004) study of 258 major transport infrastructure projects completed between 1927 and 1998 in 20 nations across five continents found that the majority had cost overruns or benefit shortfalls. For example, 90 percent of projects with cost overruns ended up with completion problems, and rail passenger traffic turned out to be 51.4 percent lower than estimated (see Box 10.3).

Decisions on investment spending may also be externally driven, complicating a country’s overall fiscal policy management, as with the EU Structural Funds and Cohesion Funds and aid-receiving low- and middle-income countries. The external funding organization generally has its own focus and priorities, which may be at odds with the country’s own policy priorities. Furthermore, many countries treat such funding as extrabudgetary for fiscal balance purposes. Under such conditions, the task of maintaining a coherent fiscal policy framework requires close coordination with the external organizations and access to information on their expected disbursements. If these conditions are not met, or the external flows are volatile, the fiscal policy framework can become ineffective.

10.1.4. Medium-Term Budget Frameworks

By the 1990s, national development plans and public investment programs were being overtaken in advanced economies by the more integrated medium-term budget framework. MTBFs have been effective in bringing public investment within budgeting constraints, in countering the tendency toward dual budgeting, and in focusing budgetary decisions beyond the traditional and often misleading first-year effect of an investment project. The more effective MTBFs have generally been accompanied by decentralizing the responsibility for detailed budgetary management to sector ministries, making them responsible for aligning their investment and recurrent spending needs with their medium-term sector strategies and their program objectives, within budget ceilings set in the MTBF.

For a while the MTBF approach appeared to provide the right balance of medium-term integrated budgetary planning linked to policy priorities, a focus on deliverables and outcomes, and fiscal sustainability. Its medium-term horizon facilitated inclusion of operating and maintenance costs for projects nearing completion, and provided assurance of funding, at least over the MTBF period, for approved investments. As the MTBF became the main vehicle for resource allocation, the traditional central planning function lost its funding allocation role, leaving it with project design and monitoring tasks that many countries have since delegated to line ministries.
However, as noted in Chapter 4, only binding MTBFs provide tangible certainty of funding over the medium term. Most MTBFs provide only indicative ceilings for outer years, which many countries can find difficult to respect, particularly in times of uncertainty or when there are changes in government. Therefore, many MTBFs have merely inherited the optimism bias—overestimation of benefits and underestimation of costs—endemic to traditional planning frameworks without soberly addressing the problems of funding certainty. Furthermore, the short time horizon of MTBFs—3–5 years compared to 10–20 years for major capital investment projects—may further compound the problem, putting a project’s priority status at risk during its implementation lifetime, leading to possible abandonment or cutback before completion.

This partly explains why some countries have been unwilling to abandon the traditional planning framework, even after the advent of the MTBF. Starting in the mid-1990s, a few countries (such as Ireland) began to give the national development plan a new lease on life, followed in the early 2000s by several others. From there, renewed interest in investment planning processes and institutional arrangements became more widespread. Although approaches varied (see Box 10.1), all aimed to promote realism by keeping the plans focused and fully coordinated with fiscal planning processes. Some countries, such as Ireland and the United Kingdom, have further opted to strengthen the link between MTBFs and longer-term planning by introducing the concept of long-term budget commitments for large investment projects, often combined with carryover mechanisms that facilitate investment planning and execution.\(^2\)

### 10.1.5. Performance Budgeting

Objectives, outputs, and outcomes have long been familiar concepts in the context of public investment. Project proposals are normally justified by the specific demands for public goods and services that they will address—patients or students not being adequately serviced, congested roads, inadequate office accommodation for staff. Justifying large projects is often costly and time consuming. It requires significant efforts in project specification and outline design; feasibility studies with cost-benefit or cost-effectiveness analyses; and fully costed, detailed design with specific deliverables and expected outputs before the go-ahead is finally given.

Performance budgeting applies the techniques used in public investment planning across the whole budget, creating a more comprehensive environment for budgetary planning encompassing a broader set of service delivery objectives (see Chapter 7). Performance budgeting presupposes a medium-term context, and therefore is a natural fit with the MTBF approach. This ideal combination ensures that planning and budgeting processes are harmonized at both the strategic (MTBF) and the operational levels, equally providing justification for investment spending and assurance of funding over the project’s lifetime.

\(^2\)These and other cases are discussed in Laursen and Myers (2009).
Performance budgeting in theory involves devolution of responsibility for delivering agreed-on outputs and outcomes to program managers. This devolved responsibility includes investments, avoiding the isolation often associated with project implementation units. Program managers are given some budgetary flexibility to adjust spending, within limits set by the MTBF, and to address emerging issues, including those related to project implementation—such as cost overruns, savings, delays, and design changes.

Thus, the trend toward devolving project management responsibility to spending ministries is fully compatible with performance budgeting.

10.1.6. Relevance of the Accrual Approach to Public Investment

From an economic perspective, the primary difference between physical assets and current spending is the productive life of the asset once it is delivered for use. The useful life of infrastructure can be several decades. The accounting basis will determine the way in which that asset is presented in the accounts. Under cash...
accounting, the asset is expensed when stage payments are made during its construction. Under accrual accounting, it is expensed as it is being “consumed” over the years of its productive life, whereas the payments made during construction are reflected as the acquisition of the asset in the books of government—the “consumption” under accrual reflects the progressive depreciation in the value of the asset.

The progressive adoption of accrual accounting (see Chapter 8), which provides a more accurate picture of a government’s capital assets, promotes integration between capital and current budget decisions and more rational choices about when to initiate new investment projects. More explicit trade-offs between maintenance and new investment are an important element of this type of accounting.

The spread of accrual accounting is changing the way that governments view public investment. The accrual approach takes a more comprehensive view of assets, allowing government to report systematically on the use of resources from the moment of asset creation through the life of the asset. Recording information on the age of the asset, its useful life, and its utilization rate gives some indication of how much should be spent on maintaining the stock of capital, and enables more effective planning and better use of resources for maintenance.

Table 10.1 summarizes how the new PFM tools fit with and have affected public investment management. The table stresses both the advantages of these tools and their shortcomings in addressing the challenges of traditional public investment management.

10.2. RECENT DEVELOPMENTS IN PUBLIC INVESTMENT MANAGEMENT TOOLS

This section examines how the management of public investment itself is evolving through revisions to existing, and development of new, public investment tools. Even with the new public financial management innovations discussed in the previous section, public investment management still requires some specialized tools of its own. In particular, this section looks at the broad characteristics of a new framework for managing public investment, focused on (1) the appraisal stage; (2) the project selection stage; and (3) the project management, monitoring, and ex post evaluation stages.

10.2.1. Changing the Framework for Managing Public Investment

The new PFM innovations have helped to address some, although not all, of the weaknesses of the traditional planning frameworks and public investment management discussed in the previous section. Public investment planning and man-
The first prerequisite for the new planning framework is to become fully integrated into the overall fiscal management and budgeting processes, while maintaining the means to monitor and report effectively on each project. This integration implies the following:

- The macro framework for public investment should be the same as, or at least consistent with, the overall macro framework. This alignment would ensure common macroeconomic goals for government spending as a whole and encourage greater realism in setting fiscal space for investment, at least over the medium term.

- Public investment should be fully aligned with policy priorities, including long-term strategic objectives (if defined), and should not crowd out funding for ongoing projects unless they have been formally suspended or abandoned.

### TABLE 10.1

<table>
<thead>
<tr>
<th>New Tool</th>
<th>Advantages</th>
<th>Shortcomings</th>
<th>Good practices and challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium-term budget frameworks (MTBFs)</td>
<td>Facilitates effective integration of public investment within the budget process, avoids dual budgeting, and provides assurance of funding over the medium term (3–5 years).</td>
<td>Time horizon is too short for large infrastructure projects, which may have life spans of 10 years or more. Still need a robust investment planning process to ensure quality projects are selected.</td>
<td>Separate investment budget should be discontinued. However, the need for a longer-term public investment planning framework remains and must be linked to the rolling MTBF.</td>
</tr>
<tr>
<td>Performance budgeting</td>
<td>Provides a common performance focus for the whole budget instead of just the public investment budget. Useful for integrating investment with operating costs.</td>
<td>Requires enhanced capacity and systems to monitor performance.</td>
<td>Need to align the public investment performance framework with the new performance budgeting framework. Requires more diligent attention to operating costs throughout the investment period and beyond.</td>
</tr>
<tr>
<td>Accrual accounting</td>
<td>Enhances asset management transparency and public investment decisions in particular, emphasizing maintenance costs.</td>
<td>Requires capacity and significant building of awareness in concerned stakeholders.</td>
<td>Need to manage the change process as accrual accounting is introduced.</td>
</tr>
</tbody>
</table>

Source: Authors’ compilation.
• Public investment should be funded through the MTBF, approved as part of new budget initiatives, justified as integral to the expansion of government services, and aligned with overall budgetary performance management.

MTBFs and performance budgeting effectively address most of these requirements by integrating investment spending within a more comprehensive resource use framework. Nevertheless, certain specific needs of public investment management extend beyond these general PFM reforms. These needs include keeping track of, and ensuring funding for, investment projects with implementation cycles significantly longer than the typical MTBF and the average political cycle. To address this issue, the new planning frameworks should have the following characteristics in addition to those listed in the bullet points: a strategic framework setting out long-term development objectives and priorities with a time horizon of 10 to 15 years, the ability to track projects from inception to ex post evaluation, and the capacity to keep decision makers informed of the longer-term implications of public investment decisions.

Some recent developments aim to extend the fiscal and budgetary horizons beyond the three to five years of the MTBF; for instance, long-term fiscal projections are becoming more widely used (see Chapter 1). However, these efforts have generally been produced at fairly aggregated levels of spending, often with a focus on demographic changes. A few countries have introduced longer-term commitments in certain sectors—for example, the transport sectors in Ireland and the United Kingdom.3 These are sector-specific envelopes, aimed at providing sufficient funding to cover sector needs rather than to cover specific projects.

The phases for managing a project from inception to ex post evaluation—the project cycle—have not changed, and include

• the **inception phase**, comprising project specification and preliminary cost estimates for different options;
• the **evaluation phase**, which ensures that each project proposal is subjected to rigorous, consultative, and wide-ranging evaluation;
• the **selection phase**, which delivers a pipeline of fully appraised and costed projects for decision makers to select from;
• the **design phase**, which delivers detailed design plans for the project;
• the **execution phase**, which provides ongoing assessments of project status, including continued relevance, potential cost overruns, and risks; and

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3 Ireland’s Transport 21 represented a major policy commitment by the Irish government to address a perceived transport infrastructure deficit. The program, which extends to 2016, covers national roads, public transportation, and regional airports under a 10-year envelope agreed to with the department of finance—a period twice as long as that used for other areas of investment (Laursen and Myers, 2009). In the United Kingdom as well, long-range planning for transport investment has been guided in the past by a seven-year budget guideline provided to the department for transport by the treasury (Laursen and Myers, 2009).
the *ex post evaluation phase*, which establishes lessons to be learned for future project formulation and management.

Public investment management initiatives taken since the early 1990s all emphasize the need for an effective project cycle. They differ only in the specific tools and procedures used at key decision points in the cycle. A number of countries have adopted the “gateway” model first introduced in the United Kingdom, which combines strategic reviews at key points throughout the project cycle with risk assessment, to determine whether a project may pass from one phase to the next. The reviews can be centralized or decentralized, with a growing tendency toward the latter. New Zealand’s application of the gateway model puts the burden of responsibility on line ministries and agency managers, within established procedures and expectations (Table 10.2).

Other initiatives have focused primarily on developing the processes leading up to the financing decision point, with less emphasis on implementation and traditional ex post evaluation. This model is more widespread among emerging market economies and low-income countries, in which “development” remains a priority policy agenda and securing funding is the critical issue for public investment. Among the better examples are the National Investment Systems (known as SNIs) developed in Latin American countries, of which the Chilean model (outlined in Box 10.2) is the oldest and most developed (and includes ex post evaluations). Like the gateway model, the SNI model tasks central agencies mainly with defining procedures for line ministries and implementing agencies.

**10.2.2. The Appraisal Process**

Effective assessment processes require thorough reviews of the expected costs and benefits of each project, including comparisons among alternative projects. In countries in which investment appraisal is not constrained by fiscal considerations, the resulting approved pipeline of projects may exceed by several times the size of available resources. Furthermore, project appraisals in these countries tend to focus on whether each project is consistent with the country’s broadly defined “development needs” rather than on cost-benefit or cost-effectiveness analysis.

While project appraisals may differ, the core objective is to ensure that the project proposals put forward are subject to detailed scrutiny and analysis, and that the portfolio of investment projects is compatible with the available resource envelope. Detailed guidance on substantive issues related to the preparation and assessment of projects is also commonly provided, such as how to conduct cost-benefit analysis and which shadow prices and discount rates to use in project assessments.4

However, few of the new initiatives have been particularly successful in addressing the optimism bias that can be found in many significant investment proposals. Box 10.3 outlines two types of measures to address optimism bias. The

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4 For a good example, see the U.K. Green Book, which can be found at [http://www.hm-treasury.gov.uk/data_greenbook_index.htm](http://www.hm-treasury.gov.uk/data_greenbook_index.htm).
### Table 10.2

<table>
<thead>
<tr>
<th>Review</th>
<th>Objective Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic assessment</td>
<td>Confirm the need for the project or program. Check that it is likely to achieve the desired outcomes.</td>
<td>This review is for programs and for projects in early stages of development. It investigates the direction and planned outcomes of the project or program, together with the progress of constituent projects. It is repeated over the life of the program or project at key decision points.</td>
</tr>
<tr>
<td>Business justification and options: Indicative business case</td>
<td>Determine how the business requirement can be delivered, and how affordability, achievability, and value for money can be established.</td>
<td>This project review comes after the draft indicative business case has been prepared. It focuses on the project's business justification, before the key decision on approval for a development proposal.</td>
</tr>
<tr>
<td>Delivery strategy: Detailed business case</td>
<td>Determine whether acquisition and delivery strategy are appropriate for the desired business change. Implementation plans are in place.</td>
<td>This review investigates the draft detailed business case and the delivery strategy before any formal approaches are made to prospective suppliers or delivery partners. The review may be repeated in long or complex procurement situations.</td>
</tr>
<tr>
<td>Investment decision</td>
<td>Determine whether project is still required, affordable, and achievable. Implementation plans are robust; investment decision is appropriate.</td>
<td>This review investigates the updated detailed business case and the governance arrangements for the investment decision. The review takes place before a work order is placed with a supplier and funding and resources are committed.</td>
</tr>
<tr>
<td>Readiness for service</td>
<td>Organization is ready to make the transition to implementation. Ownership and governance are in place for operation.</td>
<td>This review focuses on the readiness of the organization to go “live” with the necessary business changes and the arrangements for operational services.</td>
</tr>
<tr>
<td>Operational review and benefits realization</td>
<td>Confirm smooth operation, delivery of outputs, and achievement of benefits.</td>
<td>This review confirms that the desired benefits of the project are being achieved and the business changes are operating smoothly. The review is repeated at regular intervals during the lifetime of the new service or facility.</td>
</tr>
</tbody>
</table>


First is to improve the forecasting of project costs; the second relies on incentives, including financial and criminal penalties, independent peer reviews, and public hearings. Some countries in which line ministries are responsible for project preparation and assessment have set up mechanisms to strengthen the quality of project preparation and appraisal without establishing centralized institutions for coordination and scrutiny.
BOX 10.2 Chile’s National Investment System

The Chilean National Investment System (SNI), created in 1973, has a deeply rooted legal base in the constitution and in several laws and numerous regulations. Over the years, the system has built up significant capacity to appraise projects and to train others in investment planning and management.

The main objective of the SNI is to increase the quality of public investment by providing the government with a portfolio of viable and socially relevant investment projects. The SNI tries to eliminate “white elephant” projects during the preinvestment stages.

The purpose of the SNI is to force any investment initiative to abide by project life cycle analysis at both the preinvestment stage (idea or concept, definition or profile preparation, prefeasibility study, feasibility study, financing, and approval) and the investment stage (detailed design, investment, operation, and ex post evaluation). The SNI ensures that all public investment projects (including defense) comply with quality standards and norms for identification, formulation, evaluation, and analysis, enabling their transformation from investment ideas into investment project proposals and thereafter into investment decisions. Typical activities during key pre-execution stages of the SNI project cycle include the following:

- **Idea**: Identification of benefits, geographic locale, and objectives.
- **Profile**: Examination of technical and institutional alternatives; establishment of first-cost assessments for investment, operation, project life, and other requirements; delivery of a preliminary evaluation.
- **Feasibility**: Definition of key risk parameters. Arrangement of final financing scheme. More in-depth study of modules with highest risks, check of all assumptions.
- **Design**: Detailed engineering design, blueprints, and specifications; definition of all logistics; final adjustments before execution stage; drafting of bidding proposal.
- **Ex post evaluation**: Comprehensive approach focused on program and institutional performance, rather than traditional ex post evaluation of the investment.

The Social Development Ministry (termed the Planning Ministry before 2011) and the Budget Directorate manage the SNI, with the former responsible for analysis (including cost-benefit or cost-effectiveness analysis) and approval during the preinvestment stage as well as ex post evaluation, and the latter responsible for overseeing the investment stage. The sponsoring line ministry or agency initiates the idea, follows each step of the project cycle, and then takes over operations once the project is completed. The SNI approach emphasizes ex post evaluation to determine the efficiency and effectiveness of each investment through a feedback process that includes measurements of short-, medium-, and long-term results and compares predicted with actual performance of projects. Guidance materials and manuals, and a regularly updated bank of projects, underpin the SNI process and facilitate wide-ranging investment analysis.

Sources: Ley (2006); Mimica (2008). See also http://sni.ministeriodesarrollosocial.gob.cl/.
10.2.3. Project Selection Mechanisms

As part of updating their budget procedures, many countries have introduced steps to ensure that key budget decisions for different sectors are made at the same time. Most advanced economies now have highly structured budget processes, with key decisions concentrated in specific cabinet or cabinet subcommittee meetings at predetermined steps of the process.

The same circumstances apply to public investment. Because project development progresses over long periods and projects reach key decision points at different times, there is a natural tendency for countries to approve investment projects on a continuous basis. However, many countries now make public investment decisions at cabinet meetings set aside for this purpose as an integral part of the budget process. Figure 10.1, taken from the U.K. Green Book, illustrates the integrated decision-making process for budgets and public investments used in
the United Kingdom. The traffic sign image in the figure indicates that there should be a prohibition against “parachuting” new investment projects into the budget outside the regular procedure and timeframe.

The specific decision rules for new investments may vary considerably across countries. Under binding MTBFs, line ministries are required to finance new investment proposals within their overall budget envelopes, which in some cases are further divided into separate envelopes for current and capital spending. This approach forces each line ministry to prioritize its spending internally. In countries that require special reviews for new initiatives, such as Australia, the decision to fund a new project follows the same review process as any other new policy initiative.

In environments in which MTBF ceilings are indicative only, final decisions on which projects to fund are generally left to the cabinet or one of its committees. A public investment planning framework, if in place, should ensure that only those projects that have been properly appraised and that are aligned with government priorities are considered for funding.

Figure 10.1  U.K. Integrated Budget and Investment Process

Source: U.K. Green Book.
Note: The U.K’s Gateway function, managed by the Office of Government Commerce (OGC—an independent office of the treasury), examines public investment programs and projects at key decision points in their life cycles, ensuring that they can progress successfully through all stages from idea to implementation. The process is mandatory for procurement, information-technology-enabled and construction programs, and central government projects, and complements, rather than replaces, existing spending ministry internal processes. An OGC review involves a thorough examination of the project, including its management structures, at initiation and then at key decision points in its development. There are five review stages in the process: three before the contract is awarded (business justification, delivery strategy, and investment decision) and two that appraise service implementation and confirm the operational benefits. The process includes an additional step, parallel to the five stages, to deliver strategic assessments at key decision points (such as program adjustments and resources reallocation). The OGC’s brief is to ensure the delivery of value for money in public spending by providing policy standards and guidance on best practice in procurement and projects and estate management, and by monitoring and challenging departments’ performance against these standards, grounded in an evidence base of information and assurance.
10.2.4. Managing Risks in Public Investment

The risks associated with public investment include construction cost and time overruns, higher-than-planned operating costs, and lower-than-expected revenues or benefits. These risks can affect the completion of the project or its operations once completed.

The identification and management of fiscal risks are particularly critical for projects funded through borrowing. The decision to borrow for a particular project is usually made after an in-depth cost-benefit analysis has been carried out as part of the project appraisal stage. The expected rate of return from the project may, however, be undermined by two potential fiscal risks most likely to surface only after completion of the project: the expected increase in future revenues may not materialize, and operating costs may be higher than anticipated.

Additional fiscal risks to the central government may also arise from guarantees provided to third-party borrowing, mainly borrowing by local governments and state-owned enterprises (see Chapter 5). The potential risks for central government are, first, that the third party has not undertaken an adequate cost-benefit analysis, and second, that the guarantee will be called if the third party’s fiscal situation becomes unsustainable. Although central government may have performed due diligence at the time the guarantee was granted, because the third party is likely to have some degree of autonomy, the risk will always be present until the loan has been paid in full.

The new financing instruments available to public investment projects add a further layer of fiscal risk. In public-private partnerships in particular (see the third section of this chapter), risk sharing is built into often complex project agreements that few governments can adequately assess and monitor.

Linking a project’s monitoring plan to the project’s risks has been suggested by many analysts (CABRI, 2010). Such a contract management plan should identify and estimate the main project risks, and the individuals and institutions responsible for monitoring and managing each risk. The CABRI report groups risk indicators that should be monitored during project implementation as follows:

- early warning indicators that raise awareness before a risk translates into a major problem;
- indicators related to the technical and operational aspects of the project; and
- output indicators, which measure the different project dimensions (quantity, quality, cost, and on-time completion of a particular stage).

Financial measures are often used to address and mitigate risks, particularly if risks concern the typical implementation challenges that many projects face. Normally these financial measures include a mix of incentives that induce more effective project management behavior and more flexible budgetary procedures that account for the lumpy nature of public investments. Box 10.4 describes these measures.

10.3. FINANCING PUBLIC INVESTMENT

Public investment projects can be funded from a variety of sources—budget revenues, earmarked revenues, borrowing, external grants, and more recently, public-
private partnerships. The preferred, and least onerous, methods of funding line ministries’ investments projects are to use direct budget funding or earmarked taxes. However, only a few countries (mostly OECD members) can use these methods for any sizable portion of their public investment funding requirements. Most resort to a combination of funding using several, if not all, of the methods listed above, and often with different sources of funding for different stages of the investment process. This section briefly examines the challenges and risks with three of these funding methods, placing most emphasis on the more recent innovation in public investment funding—public-private partnerships.

10.3.1. Funding Investment through the Budget

In many advanced economies, capital spending is usually financed like any other budget spending: the net borrowing requirement is financed through a portfolio approach that minimizes the financing cost at a predetermined acceptable risk profile. Implementing agencies receive the necessary funds from the budget with no special, project-specific financing arrangements. General budget financing is particularly common in countries with high credit ratings and effective governments. The ministry of finance is able to borrow at a lower rate than any government

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agency or public corporation would be able to on its own, and no major incentive problems warrant moving the investment out of the government sector. This is still the predominant approach to public investment financing in European OECD members. Even in the United Kingdom, a leader in developing nontraditional approaches to financing public investment, regular budget financing still covers about 75 percent of the government’s capital spending. The main risk in this approach comes from severe economic downturns, such as the global economic crisis, in which the cost of borrowing or the size of public debt becomes a significant fiscal concern. Public investment spending is often among the first areas targeted when fiscal consolidation is required.

Some countries adhere to a strong tradition of earmarking government revenues for particular purposes as part of the political decision-making process. The United States provides the clearest example of this approach, which has many different variations. The financing might be completely on-budget, as when a new tax or a tax increase is used to fund a new investment project. Financing might also be channeled through an extrabudgetary mechanism, a public-private partnership, or some combination of approaches.

10.3.2. External Financing

Some countries have access to concessional financing for investments or policy measures in specific sectors. In advanced economies, the clearest examples are the EU mechanisms that give grants and concessional loans for purposes such as science, the environment, and regional integration. The availability of low-cost financing improves the outcomes of cost-benefit and cost-effectiveness analyses and therefore contributes to somewhat higher investment in these priority sectors. Research suggests that EU regional support has had a significant and positive impact on the growth performance of European regions, particularly since the Structural Funds reform of 1988. However, the results also indicate that the economic effects of such support are stronger in developed countries, emphasizing the importance of accompanying policies aimed at strengthening country capacity (Cappelen and others, 2003).

In most low-income countries, financing limitations are perceived as a major obstacle to sufficient and efficient public investment. Even if governments have access to capital markets, that access is generally limited and borrowing costs are high. Governance and public administration weaknesses tend to undermine the quality of investment project preparation, assessment, and implementation. Often the only option for low-income countries is project-specific donor financing—grants or loans from bilateral donors or concessional loans from the World Bank and other development banks—which paradoxically requires more effective preparation, selection, and implementation of projects. The funding donor will generally insist on extensive oversight mechanisms that may undermine government ownership of the investment project and its integration within the country’s budget and development processes. Box 10.5 highlights issues of public investment in donor-dependent countries.
10.3.3. Managing Public-Private Partnerships

The private sector can be involved in realizing public investments and providing public services in a number of ways. The most far-reaching approach is privatization, whereby the government divests itself of the responsibility to invest as well as to provide the public service. Many countries have privatized on a large scale, selling their electricity, telecommunications, and water companies to private operators. At the other end of the scale, government may keep the ownership of an asset and the responsibility for operating it, but may employ private sector contractors to carry out some of the functions related to the asset, for instance, operations and maintenance of government buildings.

Public-private partnerships (PPPs) are intermediate arrangements between full privatization and full retention of the asset within the government. PPPs take many forms, but the term usually describes an arrangement in which a private sector entity designs, constructs, and operates an asset that provides a public service under a detailed contract with the government, and is compensated through government payments, user fees, or both. This mechanism has

**BOX 10.5 Challenges of Managing Public Investment in Aid-Dependent Countries**

Donor funding may introduce the following complexities into the management of public investment:

- projects selected according to donor preferences, with limited alignment with country priorities and limited coordination with similar projects funded by other donors, leading to potential duplications and overlaps;
- cofinancing arrangements that countries find difficult to meet, affecting timely receipt of external funds;
- volatility of donor disbursements due to factors outside the country’s control;
- country difficulties in meeting general conditions required by donors, often not connected to the project;
- donors’ preference for managing the projects outside the country’s budget process with consequent failure to adequately budget for recurrent costs, undermining the value of the asset created;
- donors’ introduction of their own procurement systems, undermining the existing public sector systems;
- donor funding not included in the government accounts, undermining transparency and accountability; and
- requirement to create separate project management units at the ministries responsible for implementation, staffed with personnel hired by donors at higher salaries, limiting the capacity-building opportunity and breeding discontent among the regular ministry staff.

Donors are addressing some of these challenges—by choosing budget or sector support instead of individual project support, or by accepting the use of government budgeting and accounting systems for their projects—which will gradually lead to the full inclusion of donor funds within government reporting frameworks.
been used in many areas, but seems to be particularly popular for roads, bridges, office and school buildings, and prisons. PPP funding mechanisms are expanding and diversifying across both countries and sectors, particularly for economic and social infrastructure projects. Box 10.6 presents recent findings for EU countries.

**BOX 10.6 Public-Private Partnership Investment in the European Union**

*Trends in number and value of EU public-private partnership (PPP) projects.* According to the PPPs and public sector investments database (Blanc-Brude, Goldsmith, and Valila, 2007; Kappeler and Nemoz, 2010), in the EU, the total number of PPP projects with a capital value of €5 million or above steadily increased from 2 in 1990 to 144 in 2006, and then declined in 2009 to 118. The capital value of signed projects grew from €1.4 billion (US$1.9 billion) in 1990 to €29.6 billion (US$43.2 billion) in 2007, and then in 2009 declined to €15.7 billion (US$22.5 billion). Overall, some 1,340 contracts were signed between 1990 and 2009, with a total capital value of €253.7 billion (approximately US$358 billion).

The number of PPPs signed fell from its peak in 2006 of 144 to 84 in 2011. Although the number of PPPs has continued to decline since 2009, the total value has been maintained or increased. In 2011, the total value was €17.9 billion (US$23.2 billion) owing to several contracts above the €1 billion (US$1.3 billion) mark, the largest being a high-speed rail link between Tours and Bordeaux in France—set at €5.4 billion (US$7 billion) (EPEC—the European PPP Expertise Centre).

*EU PPPs by country and sector.* Even though they are still limited, PPP markets have diversified by country and sector. The United Kingdom accounts for some two-thirds of all European PPP projects; Spain accounts for 10 percent; and France, Germany, Italy, and Portugal each account for between 2 and 5 percent. In project value, however, Portugal accounts for the third-largest share after Spain and the United Kingdom. Hungary is the largest in total value among new EU member states. Railways and motorways continue to dominate the high-value deals signed in 2011 (six of the seven highest-value projects in France, Italy, and the United Kingdom), but PPPs cover a wide variety of projects, including a €1.5 billion project for a new ministry of defense headquarters in France. In the United Kingdom education and health PPPs have increased over time, in both numbers and value (see below). Elsewhere, transport (mainly roads) still dominates, but countries are gradually diversifying their portfolios. For example, three countries (France, Germany, and Spain) have now developed and diversified their PPP contracts from the transport sector to social investments (schools, hospitals), prisons, and water and waste treatment and management.

*PPPs and size of public investment.* In all EU countries, PPP investment flows represent less than 1 percent of GDP, being significant only in Greece, Portugal, and the United Kingdom, and, to a lesser extent, in Ireland and Spain. Only in Portugal and the United Kingdom has PPP investment exceeded 10 percent of total annual public investment. At the sectoral level, on average, the results show that (1) in the transport sector, U.K. PPPs represented about 10 percent of total investment in 2000–07, and in the rest of the EU the figure has been increasing, reaching about 5 percent in 2005–08; (2) in the education sector, PPP investment in the United Kingdom has been increasing, reaching almost 20 percent in 2005–09, but in the rest of the EU it remains very small; (3) in the health sector, PPP investment has also increased rapidly in the last decade in the United Kingdom, reaching almost 40 percent of public sector investment, while remaining insignificant in the rest of the EU (Kappeler and Nemoz, 2010).
Effective use of PPPs requires the specialized knowledge and expertise often found only in private sector financial market environments, a reality that has led countries to establish dedicated units for this purpose. A dedicated PPP unit is an organization set up with full or partial aid of the government to ensure that the necessary capacity to create, support, and evaluate PPP agreements is made available to public sector contracting agencies. Some 17 OECD countries, at last count, have dedicated PPP units.

Proponents of PPPs argue that they provide better incentives for efficient construction and operation of capital projects. They argue that PPP contracts allocate risks between the public and private partners in accordance with their abilities to manage these risks. For instance, the public partner should carry the risk of political interference, whereas the private partner should take responsibility for ensuring that the asset is well maintained. Table 10.3 shows how the different risks in a PPP arrangement could be shared. Some research suggests that sizable cost savings can derive from PPP contracts compared with government implementation of major infrastructure investment projects, but this view is challenged by others.5

For a PPP contract to be worthwhile, the efficiency gains must be large enough to compensate for the increased financing and structuring costs. A PPP contract is usually based on commercial project financing, and the interest rate will generally be significantly higher than for centralized government borrowing. The contracting process involves considerable efforts from legal and financial experts, and the costs of their services tend to be high.

PPPs may allow a government to pursue public investments outside the regular budget. This is particularly true in a traditional, cash-based budgeting and accounting system, which will reflect only the annual payments made to the project entity over the lifetime of the project. This has been an important consideration for many cash-constrained governments and governments that for political reasons want to reduce the apparent size of the public sector. Some EU governments have indicated that the Maastricht Treaty limits on government deficits have been a driver in their pursuit of PPP-financed investment projects.6

However, the increasing use of accrual accounting, combined with developments in international accounting7 and statistical standards, reduces the opportunities to use PPPs to distort fiscal realities (see Chapter 8). A ruling was issued by Eurostat in 2011 closing a loophole that allowed assets and liabilities to be excluded from the government’s balance sheet; the new ruling states that if government revenues from tolls, for example, exceed 50 percent of the total value of

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5 For a discussion of different views on the impact of PPPs, see Connolly and Wall (2007). A comprehensive review of value-for-money assessments concludes that “individual PPP evaluations are still widely contestable and have a long way to go before claiming a strong degree of rigour” (Hodge, 2010, p. 105). Finally, Irwin (2012) suggests that the benefits of PPPs may be illusory.

6 For a critical perspective on PPPs in general and the experience in Hungary in particular, see Stefanova (2006).

**Table 10.3: Efficient Risk Sharing in a Public-Private Partnership Contract**

<table>
<thead>
<tr>
<th>Type of risk</th>
<th>Source of risk</th>
<th>Assumer of risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site-related risks: Site conditions; site preparation; land use</td>
<td>Ground conditions, supporting structures</td>
<td>Construction contractor</td>
</tr>
<tr>
<td></td>
<td>Site redemption, tenure, pollution or discharge, permits, community liaison</td>
<td>Operating company or project company</td>
</tr>
<tr>
<td></td>
<td>Preexisting liability</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Native title, cultural heritage</td>
<td>Government</td>
</tr>
<tr>
<td>Technical risks</td>
<td>Fault in tender specifications</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Contract design faults</td>
<td>Design contractor</td>
</tr>
<tr>
<td>Construction risks: Cost overrun; delay in completion; failure to meet performance criteria</td>
<td>Inefficient work practices, materials wastage</td>
<td>Construction contractor</td>
</tr>
<tr>
<td></td>
<td>Changes in law, delays in approval, and the like</td>
<td>Project company and investors</td>
</tr>
<tr>
<td></td>
<td>Lack of coordination of contractors, failure to obtain standard planning approvals</td>
<td>Construction contractor</td>
</tr>
<tr>
<td></td>
<td>Insured force majeure events</td>
<td>Insurer</td>
</tr>
<tr>
<td></td>
<td>Quality shortfall or defects in construction, commissioning tests failure</td>
<td>Construction contractor or project company</td>
</tr>
<tr>
<td>Operating risks: Operating cost overrun; delays or interruption in operation; shortfall in service quality</td>
<td>Project company request for change in practice</td>
<td>Project company and investors</td>
</tr>
<tr>
<td></td>
<td>Industrial relations, repairs, occupational health and safety, maintenance, other costs</td>
<td>Operator</td>
</tr>
<tr>
<td></td>
<td>Government change to output specifications</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Operator fault</td>
<td>Operator</td>
</tr>
<tr>
<td></td>
<td>Government delays in granting or renewing approvals, providing contracted inputs</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Project company fault</td>
<td>Project company and investors</td>
</tr>
<tr>
<td>Revenue risks: Increases in input prices; changes in taxes and tariffs; demand for output</td>
<td>Contractual violations by government-owned support network</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Contractual violations by private supplier</td>
<td>Private supplier</td>
</tr>
<tr>
<td></td>
<td>Other contractual violations</td>
<td>Project company and investors</td>
</tr>
<tr>
<td></td>
<td>Decline in revenue</td>
<td>Project company and investors</td>
</tr>
<tr>
<td></td>
<td>Decreased demand</td>
<td>Project company and investors</td>
</tr>
<tr>
<td>Financial risks: Interest rates; inflation</td>
<td>Fluctuations with insufficient hedging</td>
<td>Project company and government</td>
</tr>
<tr>
<td></td>
<td>Payments eroded by inflation</td>
<td>Project company and government</td>
</tr>
<tr>
<td>Force majeure risks</td>
<td>Floods, earthquakes, riots, strikes</td>
<td>Shared (or insurer)</td>
</tr>
<tr>
<td>Regulatory and political risks: Changes in law; political interference</td>
<td>Construction period</td>
<td>Construction operator</td>
</tr>
<tr>
<td></td>
<td>Operating period</td>
<td>Project company with government compensation per contract</td>
</tr>
<tr>
<td></td>
<td>Breach or cancellation of license</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Expropriation</td>
<td>Insurer and project company</td>
</tr>
<tr>
<td></td>
<td>Failure to renew approvals, discriminatory taxes, import restrictions</td>
<td>Government</td>
</tr>
<tr>
<td>Project default risks</td>
<td>Combination of risks</td>
<td>Investors</td>
</tr>
<tr>
<td></td>
<td>Sponsor suitability risk</td>
<td>Government</td>
</tr>
<tr>
<td>Asset risks</td>
<td>Technical obsolescence</td>
<td>Project company</td>
</tr>
<tr>
<td></td>
<td>Termination</td>
<td>Project company or operator</td>
</tr>
<tr>
<td></td>
<td>Residual value transfer</td>
<td>Government</td>
</tr>
</tbody>
</table>

Source: Grimsey and Lewis (2004).
government payments to the private partner in a PPP project, the project should remain on the balance sheet of government. The IMF recommends that, even for PPPs deemed primarily to be in the private sector, government should provide extensive disclosure of project risks and future payments in the budget documents (see Box 10.7).

**10.4. IMPACT OF THE GLOBAL ECONOMIC AND FINANCIAL CRISIS ON PUBLIC INVESTMENT**

During the crisis (2008–09) and subsequent recession, many OECD countries implemented stimulus packages. On the expenditure side, the packages tried to focus on timely, temporary, targeted investments that were ready to be implemented rapidly, such as increasing spending on infrastructure projects and maintenance of roads and buildings.

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**BOX 10.7 Disclosure Requirements for Public-Private Partnerships**

Information on public-private partnerships (PPPs) should be disclosed in government budget documents and end-year financial reports. In countries with significant PPP programs, disclosure could be in the form of a “Statement on PPPs.” In addition to an outline of the objectives of the current and planned PPP program, and the capital value of PPP projects that are at an advanced stage of bidding, information for each PPP project or group of similar projects should include the following:

- future payment obligations for the following periods: 1–5 years; 5–10 years; 10–20 years; 20 years and longer;
- significant terms of each project that may affect the amount, timing, and certainty of future cash flows, valued to the extent feasible (e.g., contingent liabilities, the concession period, the basis upon which renegotiation is determined);
- the nature and extent of rights to use specified assets (e.g., quantity, time period, or amount as appropriate), obligations to provide or rights to expect provision of services, arrangements to receive specified assets at the end of the concession period, and renewal and termination options;
- whether the PPP assets (or any part thereof) are recognized as assets on the government balance sheet, and how the project affects the reported fiscal balance and public debt;
- whether the PPP assets (or any part thereof) are recognized as assets either on the balance sheet of any special-purpose vehicle, or in the private partner’s financial statements;
- any preferential financing for PPPs provided through government on-lending or via public financial institutions;
- future expected or contingent government revenue, such as lease receipts, revenue or profit-sharing arrangements, or concession fees; and
- any project financing or off-balance sheet elements such as contingent liabilities provided by entities owned or controlled by government. Signed PPP contracts should be made publicly available. Within-year fiscal reports should indicate major new contracts that have a short-term fiscal impact.

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Managing Public Investment

Public investment programs amounted to 11.1 percent of total public spending in 2008 and 9.3 percent in 2009, equivalent to 4 percent of GDP in 2009 (compared with 3.3 percent in 2006). The countries most proactive in including public investment in their stimulus packages were Australia, Canada, France, Germany, Mexico, Poland, the Republic of Korea, Spain, and the United States. Given that subnational governments are responsible on average for two-thirds of OECD investment spending, these governments played a key role in several countries in executing the stimulus packages. By the end of 2010, most countries had allocated more than 90 percent of their stimulus funds.

Since this stimulus period, advanced economies have made large cuts in public investment, in many cases more than any other spending item (IMF, 2012). In emerging market economies, however, the increase in capital spending early in the crisis had not by 2012 been rolled back. Despite the possible negative consequences in the medium term on potential growth, many advanced economies have reverted to procyclicality. Although government financing of public investment through the budget has been hard hit by the crisis, so has financing through PPPs. The PPP markets in Europe have contracted, accompanied by changes in risk allocation and in finance instruments, as discussed in Box 10.6.

10.5. CONCLUSION

This chapter assesses the changing role for public investment as a specialized area of public financial management. It argues that public investment management and planning have evolved in line with the new PFM innovations discussed in the preceding chapters, mainly by becoming more integrated into the overall fiscal management and budgeting processes. However, certain specialized public investment management tools are still needed. New public investment management tools have been developed and existing ones revamped, with an emphasis on a more strategic approach to managing public investment within the wider PFM framework. The key conclusions about the impact of the new PFM tools on public investment are summarized below. Despite their benefits, these tools have shortcomings and do not address all of the weaknesses of traditional public investment management.

MTBFs have been effective in bringing the public investment component of spending into the budgeting mainstream and within fiscal constraints, and, along with performance budgeting, in countering the tendency toward dual budgeting. However, the time horizon of MTBFs is too short for large infrastructure projects in particular and investment planning in general, which partly explains why countries have been unwilling to abandon the planning framework, though some countries have adopted long-term investment commitment processes to address this problem.

Performance budgeting, along with the accrual approach, may create a more comprehensive environment for investment planning around a broader set of service delivery objectives, in which future operating costs can be kept under regular review throughout the investment period. Risk management should be an
integral part of project management and should be practiced at every stage of the project cycle. Its objective is to identify, assess, and manage significant risks that could derail project execution. Once the risks have been identified and assessed, they should be monitored continuously until the end of the project.

The new generation of public investment planning systems create a commonly accepted framework, with clearly defined procedures, for making decisions at key stages of a project’s life cycle, which is complementary to the new PFM tools of medium-term and performance budgeting.

Finally, although most countries would prefer to fund their public investment projects directly from the budget—as is done in advanced economies that have ready access to bond markets to fund their budget deficits—many have to seek external sources to fund individual projects, which requires additional effort, creates new risks, and potentially distorts policy priorities. Investment project funding (public-private partnership arrangements in particular) has opened up new opportunities that budget or borrowing constraints would otherwise have denied, but has also introduced new challenges and risks that most governments remain ill equipped to adequately address.

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